DOCUMENT RESUME

ED 249 833 HE 017 719

AUTHOR Lentz, Linda P.
TITLE Graduate Women's Career Salience, Aspirations, and Involvement.
SPONS AGENCY Women's Educational Equity Act Program (ED), Washington, DC.
PUB DATE [84]
NOTE 144p.
PUB TYPE Reports - Research/Technical (143) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC06 Plus Postage.
DESCRIPTORS *Career Choice; Coeducation; *College Graduates; *Females; Graduate Surveys; Higher Education; Mothers; *Occupational Aspiration; Parent Influence; Questionnaires; *Selective Admission; Single Sex Colleges; Vocational Followup
IDENTIFIERS *Career Salience

ABSTRACT

The career salience and career involvement of young women 1 year after graduation were assessed. Respondents attended nine coeducational colleges and six women's colleges located in the U.S. northeast. It was found that graduates of very selective women's colleges had a higher career salience rating on the Life Style Index than did their counterparts at coeducational colleges. Graduates of highly selective women's colleges were more career salient than were women at either very selective or selective coeducational colleges. The most important predictor of career involvement 1 year after college graduation was whether or not the woman had actively chosen an occupation she wished to pursue. Secondary factors were: importance attached to having a career, grade point average at graduation, and maternal attitudes. Among coeducational colleges, graduates of selective schools were significantly less role innovative than were graduates of very or highly selective schools. It was found that the career salient woman generally had a mother who was employed and did not perceive that her mother criticized her unfairly. The career salient woman also considered a career important to her personal satisfaction and she supported sexual equality. The study questionnaire is appended. (Author/SW)

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GRADUATE WOMEN'S CAREER SALIENCE, ASPIRATIONS, AND INVOLVEMENT

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GRADUATE WOMEN'S CAREER SALIENCE, ASPIRATIONS AND INVOLVEMENT

LINDA P. LENTZ

ABSTRACT

THIS STUDY OF THE CAREER SALIENCE AND CAREER INVOLVEMENT OF YOUNG WOMEN ONE YEAR AFTER GRADUATION USED SUBJECTS FROM NINE COEDUCATIONAL COLLEGES AND SIX WOMEN'S COLLEGES LOCATED IN THE NORTHEASTERN UNITED STATES. ANALYSES OF VARIANCE AND A PRIORI ORTHOGONAL TESTS INDICATE THAT GRADUATES OF VERY SELECTIVE WOMEN'S COLLEGES HAVE A HIGHER CAREER SALIENCE RATING ON THE LIFE STYLE INDEX THAN DO THEIR COUNTERPARTS AT COEDUCATIONAL COLLEGES. GRADUATES OF HIGHLY SELECTIVE COEDUCATIONAL COLLEGES ARE MORE CAREER SALIENT THAN THEIR SISTERS AT VERY SELECTIVE AND SELECTIVE COEDUCATIONAL COLLEGES. A STEPWISE REGRESSION USING ALL SUBJECTS RESULTED IN THREE CATEGORIES OF VARIABLES PREDICTING CAREER SALIENCE: CAREER (IMPORTANT FOR PERSONAL SATISFACTION, IS SURE SHE'LL PURSUE IT AND IS INVOLVED IN POST-BACCALAUREATE EDUCATION), MALES (SUPPORTS EQUALITY OF SEXES, INCLUDING SHARING HOUSEHOLD TASKS WITH SPOUSE), AND MOTHER (SHE WORKS AND IS PERCEIVED AS NOT CRITICIZING HER DAUGHTER UNFAIRLY). DISCRIMINATE ANALYSIS WAS USED TO IDENTIFY VARIABLES PREDICTIVE OF CAREER INVOLVEMENT ONE YEAR AFTER COLLEGE GRADUATION. RESULTS INDICATE THAT THE MOST IMPORTANT VARIABLE IS WHETHER OR NOT THE WOMAN HAS ACTIVELY CHOSEN AN OCCUPATION SHE WISHES TO PURSUE. SECONDARY FACTORS ARE: IMPORTANCE ATTACHED TO HAVING A CAREER, G.P.A. AT GRADUATION AND MATERNAL ATTITUDES. FINALLY, ANALYSES OF VARIANCE WERE PERFORMED TO INVESTIGATE THE RELATIONSHIP BETWEEN LEVEL OF CAREER ASPIRATION AND TYPE OF COLLEGE ATTENDED. NO DIFFERENCES WERE FOUND BETWEEN COLLEGE TYPES. AMONG COEDUCATIONAL COLLEGES GRADUATES OF SELECTIVE SCHOOLS WERE SIGNIFICANTLY LESS ROLE INNOVATIVE THAN GRADUATES OF VERY OR HIGHLY SELECTIVE SCHOOLS.

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The activity which is the subject of this report was produced under a grant from the U. S. Education Department, under the auspices of the Women's Educational Equity Act. Opinions expressed herein do not necessarily reflect the position or policy of the Department, and no official endorsement should be inferred.

Printed and distributed by
The WEEA Publishing Center
Education Development Center
55 Chapel Street
Newton, Massachusetts 02160
1981

DEDICATION

To the women in the Class of 1979
who, because of their participation,
made this study a reality

and

To the fifteen cooperating colleges

ACKNOWLEDGEMENTS

A research study of this magnitude can not be accomplished single-handedly. Therefore, I wish to recognize, first, the contributions of the fifteen participating colleges and 1166 subjects. Their interest in this topic and their cooperation in all three phases of the study has aided in our understanding of the complex nature of the early stages of women's career development and differences between college types (women's, coeducational).

The execution of the study was enhanced by the contributions of the following individuals: Julie Lee, Marcia Allen and Elaine Williams, who assisted in data preparation and analysis; Louise Sanderson, who assisted with the literature review; Alice Winslow, who typed the final copy of the research report; and my children and their friends, who helped with all the mailings. The editorial comments provided by Glenn E. Snelbecker and Louise Sanderson, who read all portions of this research report during its preparation, have greatly improved its quality and readibility. To all of you, my sincere thanks.

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EXECUTIVE SUMMARY

INTRODUCTION

This project is the third phase of a longitudinal study of women's career development. It was undertaken for two major purposes: (1) to continue the author's investigation of changes in career salience that occur over time for women who attended women's colleges versus coeducational colleges at three selectivity levels (selective, very selective, highly selective) and (2) to expand the scope of the earlier research by exploring other aspects of the early stages of women's career development. Specific areas investigated relate to three major variables. These variables are defined as: career salience--the priority ascribed to pursuit of a career among other sources of satisfaction in a woman's life; career involvement--the pursuit of one's chosen career or enrollment in graduate or professional school to prepare for the chosen career; and career aspiration--the level of the organizational ladder to which one aspires.

The study was designed to respond to four major questions.

1. Are there significant differences in career salience between women's college graduates and coeducational college graduates one year after graduation?

2. What factors predict career salience?

3. Which variables can be used to predict career involvement one year after college graduation?

4. Is there a relationship between the level of career aspiration and type of college attended (women's, coeducational)?

METHOD

Subjects

The subjects were 1166 female graduates of six women's colleges and nine coeducational colleges. These colleges are small, private, liberal-arts institutions located in the northeastern United States. At the time of their selection for the initial phase of the study, 1975, all of the colleges had a yearly comprehensive fee greater than $3500.00 and colleges within each cell of the research design offered similar programs. Although some of the colleges maintain their historical denominational affiliations, only those which operate as non-denominational institutions were included in the study.

Instrumentation

The Life Style Index, which served as a measure of career salience, was developed by Shirley Angrist (1971-1972). The sophomore/senior test-retest reliability of this instrument was reported as .88. The current researcher calculated the split-half reliability as .78 while the Kuder-Richardson reliability was found to be .685.

The Life Style Index was embedded in a lengthy questionnaire which contained questions in five categories: educational background, career plans, familial influences on careers, parental background, and reactions to the study.

Procedures

The questionnaire was mailed directly to the 2224 subjects after notifying them of the third phase of the study and requesting their participation. Reminders were sent to non-respondents at two to three week intervals. A response rate of 53.0 percent was obtained, yielding 1166 subjects.

DATA ANALYSIS AND RESULTS

Question 1: Are there differences in career salience between women's college graduates and coeducational college graduates?

Summary: Results of a two-way analysis of variance performed to compare coeducational and women's colleges at the selective and very selective admission levels indicate that there

is a significant difference in career salience between college types. A priori orthogonal tests using the t-ratio pinpoint the difference as existing at the very selective level with women's college graduates being more career salient than coeducational college graduates. No difference between selectivity levels was found. Nor was there an interaction between college type and selectivity level.

A comparison of career salience among the three selectivity levels of coeducational colleges using a one-way analysis of variance resulted in significant differences. These differences were identified using the t-ratio. Graduates of the highly selective colleges were more career salient than their counterparts at the other two selectivity levels.

Question 2: What factors predict career salience?

Summary: Factors which predict career salience were determined by a stepwise regression analysis using all the subjects. In addition, separate regression analyses were carried out on the attitudinal variables and the behavioral variables. Seven factors entered the regression equation and attained significance in two analyses (the attitudinal or behavioral variables analysis and the combined variables analysis). Thus, the career salient woman has the following characteristics:

- considers having a career important to her personal satisfaction

- believes in sharing household-tasks with her spouse
- supports equality of the sexes
- feels certain that she'll pursue her chosen occupation
- has continued her education during the first post-baccalaureate year
- has a mother who works
- has a mother who does not criticize her unfairly.

Question 3: Which variables can be used to predict career involvement one year after college graduation?

Summary: Discriminant analysis was used to identify variables predictive of career involvement at the termination of the first post-baccalaureate year. Career involvement was defined as being either employed in the career of one's choice or enrolled in graduate or professional school in order to continue preparation for employment in the chosen career. Results indicate that the single most important variable in predicting career involvement is whether or not the woman has actively chosen an occupation she wishes to pursue. Other predictive factors are: the importance a woman attaches to having a career, cumulative grade point average at graduation, and maternal attitudes.

A second analysis was carried out using commitment to a career (measured by desire in an ideal world to work) as a second factor. Four groups were identified and the discriminant functions differentiating among the

groups were determined by discriminant analysis. The four groups were: women who are currently career involved and who in an ideal world want to work; women who are currently career involved but don't want to work continuously; women who are not career involved now but want to work in the future; and women who are not currently career involved and who prefer not to work in the future.

Career involved women who prefer to work tend to be those who have actively chosen the occupation they wish to pursue rather than fallen into a job. They are likely to have high grade point averages in the undergraduate years and to have scored high on career salience at the time of college graduation, which confirms the fact that for their own personal satisfaction they place a great deal of importance on having a career.

The career involved women who prefer not to work also have actively chosen their occupations. Those occupations tend to be traditional women's occupations and the women are less certain that they'll pursue the occupation.

Women who are noncareer involved but who prefer to work, may have actively chosen a career which is likely to be nontraditional. They are fairly certain they'll pursue their chosen career and they attach importance to having a career.

Those women who have not consciously made a career choice are less likely to be career involved one year after college graduation. They attach less importance to having a career

as a personal source of satisfaction and scored lower on career salience in 1979 when compared to career involved women.

Question 4: Is there a relationship between the level of career aspiration and the type of college attended?

Summary: To determine whether there is a difference in level of career aspiration between college types and among selectivity levels, least squares analyses of variance similar to those used to respond to Question 1 were performed. Three indicators of career aspiration were used in separate analyses. Neither the organizational model of career aspiration (staff, mid-management, top-management, etc.), the innovativeness of career choice, nor the pursuit of graduate or professional school in the first four post-baccalaureate years was related to the type of college attended. Only one indicator, innovativeness of career (traditional male versus traditional female), was related to selectivity of the college attended; graduates of selective coeducational colleges are significantly less role innovative than graduates of either very selective or highly selective coeducational colleges.

Analyses of variance were also performed to compare career aspiration levels, innovativeness of chosen career and pursuit of graduate or professional education among high, median, and low levels of career salience. Career aspirations, defined by an organizational model are unrelated to career salience. However,

when masculinity of career and plans to continue education were considered in relationship to career salience, it was found that the higher the career salience the more likely the woman is to choose a traditional male occupation and to plan for graduate, professional or other training within the first four post-baccalaureate years.

CONCLUSIONS

Over the five year period of this longitudinal study women's college graduates at the very selective level have maintained their lead in career salience over graduates of comparable coeducational colleges. However, the difference between the five subgroups defined by college type and selectivity is narrowing. This raises the question of whether the effect of college type will be evident in the future.

Having made an active career choice is the prime determinant of career involvement one year after college graduation. Other predictive factors include the importance the woman attaches to having a career, her undergraduate grade point average, and maternal attitudes.

Career involvement differs from career salience. The former term is defined by a woman actively pursuing her chosen occupation or preparing for it through continuing education. Career salience refers to the priority a woman ascribes to having a career among other sources of personal satisfaction. Factors which predict career involvement one year after college graduation include: the

importance the woman places on having a career, how certain she is that she'll pursue a career, her belief in equality of the sexes at home and in the marketplace, continuation of her education, whether her mother works, and her relationship with her mother.

There is no difference in the level of occupational aspiration between college types, among college selectivity levels, or among levels of career salience. This lack of difference indicates that other indices of career aspiration must be found. One possible index of career aspiration level is innovativeness of career; the more career salient a woman, the more role innovative her career choice tends to be. Role innovativeness is also related to selectivity of the college attended. A second possible indicator of career aspiration level is pursuit of graduate or professional education within the first four post-baccalaureate years. This variable is related to level of career salience, however it is not significantly related to either college type or selectivity of the college attended. A third possible indicator of career aspiration is highest degree planned. Data were not available to explore this possibility.

This study has answered certain questions concerning the early stages of graduate women's career development. Other questions can only be answered by continuing the longitudinal study. Specific questions that need further investigation are: (1) Can a model of women's career development be identified? (2) Is there a long-term effect of college type on women's

career development? (3) What are the critical incidents that influence women's career development--post-baccalaureate education, marriage, children, etc.?

Chapter 1

INTRODUCTION

In 1973, Elizabeth Tidball published her first article in which she called attention to her finding that, on a percentage basis, more career successful women come from women's colleges as opposed to coeducational colleges. (Career success was defined as being listed in Who's Who of American Women.) Tidball attributed this alleged advantage of women's colleges to the greater availability of female faculty role models.

This conclusion was intriguing. First, it must be questioned based upon the causal relationship Tidball inferred from a correlation. Second, one needs to investigate how a person is selected for inclusion in Who's Who of American Women; this is accomplished through nomination -- frequently by the institution from which the woman graduated. Third, do women faculty members serve as role models for female students? If so, they may contribute to young women's career aspirations. Fourth, might it be possible that other factors are responsible for the success of women's college graduates provided you use inclusion in Who's Who of American Women as your criterion of success? This researcher posited the theory that the greater career success of women's college graduates may be related to pre-college factors rather than, or in addition to, college factors.

A review of the literature turned up no additional research comparing women's colleges and coeducational colleges. However, advocates of women's colleges, in an effort to preserve the single-sex status of their institutions, had recently published articles proclaiming that women's colleges make a major contribution by providing a supportive atmosphere in which women are strongly encouraged to develop their career potential (Cole, 1972; Tompkins, 1972; and Truman, 1970).

The literature on other potential areas of influence on women's career achievement was perused--the general impact of colleges, the impact of professors as role models, and the socialization of girls. No evidence was found to support a claim for a positive relationship between career achievement and college impact or the impact of professors as role models. However, when the role of female socialization was explored abundant research was found to support a hypothesis that, because of differential socialization effects and the selective recruitment of colleges, women enrolling in women's colleges may be more prone to pursue careers than women enrolling in coeducational institutions.

This hypothesis was tested on the female students of the Class of 1979 from fourteen colleges (five women's and nine coeducational) in the fall of 1975. Results of the study support the hypothesis; women at women's colleges are more career salient than their counterparts in coeducational colleges, particularly those enrolled in very selective colleges. For both college types career salience was positively related to college selectivity. This factor (career salience) was defined by the woman not only

being career motivated but imputing a high degree of satisfaction to pursuing a career and ascribing a high priority to her career among other sources of satisfaction. Angrist's (1971-1972) Life Style Index was used to measure career salience.

In an effort to better understand the effects of colleges on womens' desire to pursue a career and the effects of college type and selectivity on this variable a follow-up study was conducted on the original population at the time of graduation, spring 1979. Results indicate that all subgroups of the research design showed an increase in career salience, with highly selective and selective coeducational colleges having greater increases than the other groups. The initial difference found between very selective women's colleges and coeducational colleges was maintained. Differences were evident between highly selective coeducational colleges and coeducational colleges at the other two selectivity levels.

The present study, which occurred one year after the subjects graduated from college, was designed to extend our knowledge of women's career salience and the effects of college type and selectivity on career salience. Thus, two questions were investigated.

1. Is there a relationship between career salience and type of college attended (women's coeducational) one year after graduation?

2. Which educational background, *career plans*, *familial influence*, and parental background variables can be used to predict career salience?

A second goal of the study was to extend our limited knowledge of college-educated women's career development. Research indicates that continuously employed women reap more rewards from their work (higher salary, more favorable job assignment) than non-continuously employed women. Therefore, being able to predict which women will become career involved following graduation is important. Because of the early stage of the subjects' career development (one year after college graduation), career involvement was defined as being employed in one's chosen career or attending graduate or professional school to prepare for the chosen career.

If women's colleges, as compared to coeducational colleges, do provide a more supportive atmosphere in which women can develop their career potential, might this be reflected in the aspirations of their graduates? That is, might the level of the organizational ladder to which a women aspires be related to the type of college attended?

To respond to these concerns two additional questions were pursued.

3. Which variables (educational background, career plans, familial influences, parental background, and 1979 career salience) can be used

to predict career involvement one year after college graduation?

4. Is there a relationship between level of career aspiration and the type of college attended (women's, coeducational)?

INVITATION

I invite you to pursue these questions with me. The remainder of this report is designed to facilitate that exploration. A review of the pertinent literature is presented in Chapter 2, which culminates with the research questions. Chapter 3 provides a detailed explanation of how the study was conducted--sample, including its selection; instrumentation; procedures followed for the three phases of the study; and data analysis for this study.

Results for each research question are presented separately in Chapters 4 through 7. An introduction to the question, results of the data analysis, and a brief discussion of the results are given for each question.

In the concluding chapter, Chapter 8, the results of all the research questions are synthesized. These results are then related to the research literature. Implications are drawn and directions for future research are charted.

Chapter 2

CONTEXT OF THE STUDY: REVIEW OF THE PERTINENT LITERATURE

Forty-two percent of the workforce in the United States is female. Of this group 59.7 percent are married, 54 percent are mothers of children under age 18, and 19.7 percent are the sole support of their families (Johnson, B., 1981). These statistics quickly show that the myth of women working for "pin money" is passé. Women work because they must work in order to provide for their families. Yet, their salaries still reflect the "pin money" myth; women earn only 57 percent as much as men. Equity does not exist in the marketplace.

Nor does equity thrive in education. In spite of the fact that, in comparison with men, women are higher achievers academically, only one-fourth as many women as men received their first professional degrees or doctorates in 1978-79. While these figures indicate a tremendous disparity between women and men, the National Center for Education Statistics reports that

this is a tenfold increase in first professional degrees awarded women during the past decade (1,612 in 1968-69, 16316 in 1978-79). During the same decade, the number of doctorates awarded to women nearly tripled -- 9,201 in 1978-79 compared to 3,436 in 1968-69. Women earned approximately half the bachelor's and master's degrees in 1978-79. While women have made fantastic gains in the number of degrees awarded during the past decade, projections indicate that by 1990 women will still earn only 33 percent of the first professional degrees and doctorates.

Why do these discrepancies exist in education and employment? Do women's career goals differ so radically from those of men? We cannot answer these questions until we have more information on the career development of women.

RESEARCH ON WOMEN's CAREER DEVELOPMENT

Several authors have documented the fact that women do not fit the same career pattern as men (Werts & Watley, 1968; and Davis, 1967). Other researchers have investigated the impact of colleges on the educational aspirations of women (Patterson, 1976) and the career development patterns of women (Vetter & Stockburger, 1977). Patterson found that college selectivity has a significant and positive effect on educational aspirations for both males and females. However, the effect is stronger for males than females. When the freshman/senior data were analyzed, women were found to hold lower career aspirations than men. In addition, for women college selectivity and grade point average interacted to influence women's educa-

tional aspirations. Patterson concluded that males and females need to be studied separately because the processes shaping the development of women are more complex than those affecting men.

Vetter and Stockburger (1977) analyzed the career patterns of a national sample of women using two well-known patterns that have been proposed for women's career development: the "leaving school-marriage-first child" pattern and Super's classification of career patterns for women. Super's classification has six patterns: stable homemaker, conventional, stable worker, double track, interrupted and unstable worker. The researchers found that continuously working women had more education, more desirable job assignments, and greater personal income than noncontinuously employed women. Also, single women working continuously were higher on these variables than married women.

It is the goal of the present study to explore several aspects of career development for one group of women: college graduates. Previous research has given us some insight into women's career development but we need to develop a comprehensive model that includes stages of development, if such exist, and factors which contribute to or inhibit women's career development.

Because the study is focused on college graduates, several variables related to college seem to be appropriate avenues to explore in searching for factors which influence women's career choices. These are: the impact of col-

lege on student interests, attitudes, and level of aspiration; the impact of professors as role models; and the relationship between college type (women's versus coeducational) and career achievement. The literature on two more general factors will also be reviewed in the quest to explain the early stages of women's career development: female socialization and women's career aspirations.

IMPACT OF COLLEGE ON STUDENT INTERESTS, ATTITUDES AND LEVEL OF ASPIRATION

Research indicates that colleges have little impact in modifying student interests and attitudes. Stobaugh (1972) found that students tend to seek out experiences that reinforce their already existing beliefs and interests. In a study of values and attitude changes among college students Lehmann and Payne (1963) also found that students are reinforced rather than modified by their college experiences. They found that there was no relationship between the type of attitude or value change and the impact of the instructor. The extent of impact of a course was found to relate significantly to students' changes in values.

Astin (1961, 1962a, 1962b) examined the effect of a college on its students by looking at the productivity (percent of students going on for the Ph.D) of the college. He found that a college's actual Ph.D output can be predicted relatively accurately from an expected output based on the sex, major field and intelligence level of its students. He concluded that "much of the variation in Ph.D productivity which had been previously attributed to the motivating

effects of the colleges now appears to be a function of differences among the student bodies which enroll" (Astin, 1961, p. 177).

This conclusion was also reached by Theodore Newcomb (Tavris, 1974) after 45 years of teaching in various colleges and universities across the nation. He believes that the college selection process assures a group of students who think alike and fit the "image" of the college. He found in his work at Bennington that the most important source of influence for a student is the peer group. The association with like-thinking peers results in attitude stabilization rather than attitude change.

Stern (1971) described five types of college and university cultures: expressive, intellectual, protective, vocational, and collegiate. He found the personality profiles of freshmen and upper-classmen in each of the environments to be similar. The environmental profile for each college is distinctive and stable. He concluded that selective recruitment may play a role in maintaining an institutional pattern.

Nichols (1964) examined the Graduate Record Examination (GRE) scores of 381 1962 college graduates, who were National Merit Finalists when they graduated from high school, to assess the effect of college attendance. He found that half the variance in the GRE scores was attributable to differences in the initial ability of the students while the student's major field of study had two times the effect of the college. Thus, he concluded, "In short, the college influence is impressively less than might have been expected. To be sure there were no sows' ears in our sample, but the colleges did little more than

rearrange the embroidery around the tops of the purses made from the very high quality silk provided them" (p. 53).

In summary, the impact of colleges on student interests, attitudes and level of aspiration is small. The output of a college (graduates) is generally a function of student bodies which enroll.

IMPACT OF PROFESSORS AS ROLE MODELS

There are some contrasting views and findings concerning the potential and actual impact of professors as role models for college students.

In her 1974 article, Tidball reiterates one result of her 1973 study - "the greater the women-faculty/women-student ratio, the greater the number of women graduates who subsequently achieve" (p. 52). She concluded that "women teachers as role models are, thus, a critical ingredient of a college environment that turns out talented women" (p. 52).

Harmon (1970) found in her research that, at age 18, career-oriented women did not consciously differ from non-career-oriented women. This indicates that the identity of the women subjects was not fully shaped at the time they entered college and, hence, they were open to the influence of models outside the family. Harmon's research is supportive of Tidball's (1973) argument for more female role models on the faculty and administration of colleges.

In an extensive comparison of males and females at six educational levels (sixth grade, ninth

grade, twelfth grade, university freshmen, university seniors, and adults), Dole (1964) found that "in all populations, girls reported themselves as influenced by more external influences than did boys" (p. 170). Teachers were significantly more frequently reported to be an influence on females than on males in all but the adult population.

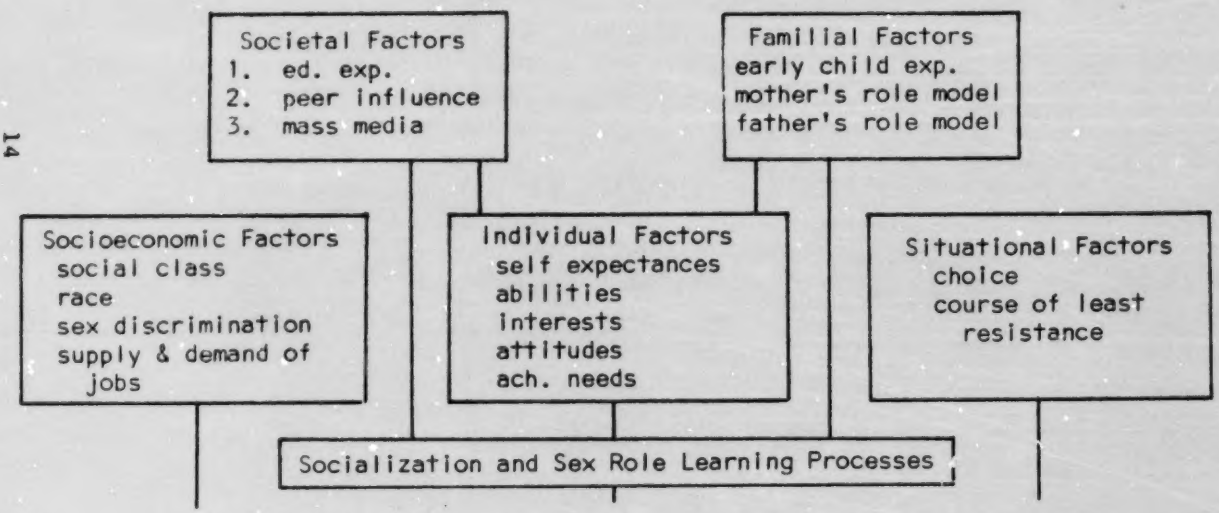
Women have been found to be highly susceptible to the influence of both departmental faculty and their departmental peers. Weidman (1974) studied the influence these two factors have on five values: helping others, administration, financial success, career eminence, and creativity. He found that departmental faculty norms and faculty contact exerted more significant influence on undergraduate's values than did student norms and peer ties, particularly for women. However, peer ties have a negative effect on creativity orientation. Women majoring in high faculty vocational norm departments and reporting close faculty associations tend to develop much higher eminence orientations than those with little faculty contact. Those with close faculty relationships also have strong "people" orientations, financial success orientations, and creativity orientations.

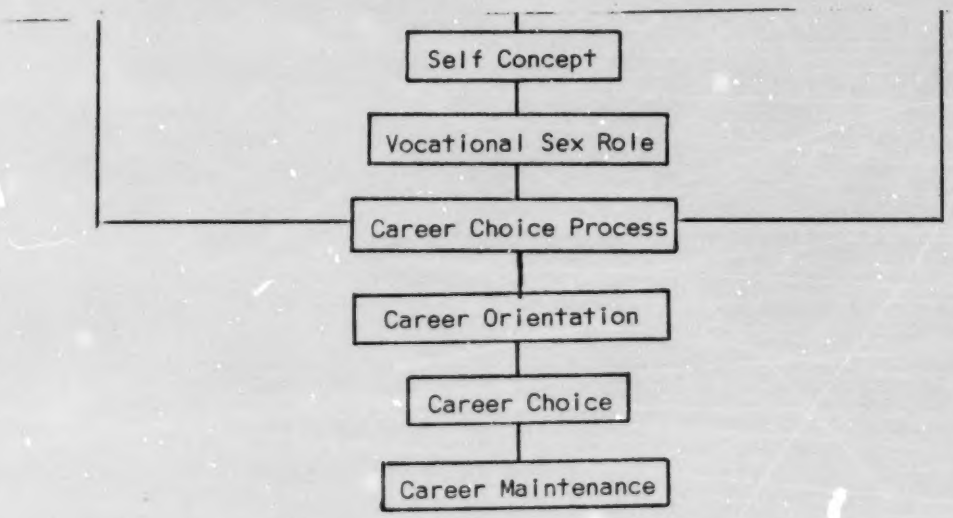
Husbands (1972), who investigated the effectiveness of female versus male role models for women, concluded that there is no hard evidence that women serve as more effective role models than men for women college students. This is compatible with Tidball's finding that "the number of men faculty neither enhanced not detracted from the output of women achievers" (1973, p. 133).

The potential impact of college professors as

Figure 1

FACTORS WHICH MAY AFFECT THE SOCIALIZATION, SEX ROLE LEARNING, AND THE CAREER CHOICE PROCESSES IN COLLEGE WOMEN*





* Oneill, Meeker and Borgus (1977)

role models could be especially important for research and theory on ways in which women's colleges versus coeducational colleges influence female student's career plans. If sex of the role model were an important factor, the women's colleges have the potential for far greater impact on women than coeducational colleges. The Women's College Coalition (1976) reported that the percent of female faculty at women's colleges is 2½ times the national average for all higher education institutions and that the percent of female faculty with the rank of full professor is more than four times the national average.

FEMALE SOCIALIZATION

Oneill, Meeker and Borgus (1977) theorize that there are a number of factors which may affect female socialization, sex role learning, and the career choice processes in college women. To assist in understanding the interrelationships among the factors and to facilitate career counseling the authors have developed a model, Figure 1, to show the factors. The work of other researchers whose work is reviewed in this section tends to confirm these relationships.

Mothers are reported by some researchers to influence their daughters' attitudes concerning employment and equity between the sexes. Vogel, Broverman, Broverman, Clarkson and Rosenkrantz (1970) found that both males and females whose mothers worked perceived less difference between the masculine and feminine roles than those individuals with homemaking mothers. This occurred because the fathers were more apt to participate in household tasks. Simultaneously, mater-

nal employment tended to "upgrade" the daughter's perception of her own sex with regard to those characteristics that are considered socially desirable for the opposite sex. The researchers concluded that "presumably, the less restrictive and more congruent definitions of sex roles held by children of working mothers influence role behavior so that the children of working mothers feel even freer than their parents to engage in overlapping role behaviors, and so achieve in their own lives a greater degree of sex role equality" (p. 391).

Baruch (1972, 1974) also found that the mother's attitude toward a dual role pattern and her success with it were significantly related to her female subjects' attitudes toward careers. When asked "Which parent do you resemble most overall?" and "Assume that your life pattern will resemble that of one of your parents, which would you prefer it to be?" (p. 175) daughters of working mothers preferred the mother for pattern preference. Daughters of non-working mothers who were dissatisfied with their role were rarely chosen for pattern preference. Baruch (1974) concluded that father identification may reflect the negative aspects of the traditional female role.

Other researchers have stressed the role of the father in the development of their daughters' career-orientation and/or career salience. (Acker and Howard, 1972; M. Johnson, 1963; R. Johnson, 1970; Lynn, 1972, 1974; Oliver, 1975; Werts, 1967). Johnson (1963) and Lynn (1974) both emphasize that sex role differentiation is a result of identification of both sexes with

the father. The father rewards his daughter by his appreciative attitude for her being good and being attractive (feminine). Thus, the father reinforces the traditional sex role for women. At the same time he exerts pressure and discipline on his sons to be men and not show any signs of feminism. By identifying with the father, children break their initial dependency relationships with the mother, who tends to treat children of both sexes the same. Lynn (1974) cites a study done by Nuzum in 1970 in which women oriented toward homemaking saw their relationship with their fathers as freer, more sensitive, smoother, and more pleasurable than career-oriented coeds saw theirs. The more feminine girls had more nurturant fathers. The two types of women did not differ in their perception of the mother-daughter relationship.

Identification with both mother and father appears to be important in women's career orientation. For this reason Johnson (1970) cautions us not to infer that career orientation is wholly indicative of masculine identification. However, he found that women with interests in scientific areas do tend to identify more with their fathers than their mothers.

Childrearing methods also contribute to the career choice process. Kriger (1972) and Oliver (1975) found that control and nurturance are important in the development of career-oriented women. Oliver (1975) found that career-oriented subjects perceived their fathers as being less accepting than the homemaking-oriented women. The career-oriented subjects identified more highly with their fathers than the homemaking-oriented women. Kriger (1972) found that homemakers had been the recipients of significantly

more parental control than had women in either female dominated occupations or male dominated occupations.

Other researchers have found that the education of the father is an important factor in the choice of career made by the daughter. Werts (1967) found that the choice of a non-traditional career was associated with a high educational level for the subject's father. He concluded that differentiated career choices among women is the perogative of those from higher social class backgrounds.

In a study by Repucci (1971) parental education was positively related to superior performance on three tasks (word recognition, word naming, and finding and touching an embedded figure) for girls, but unrelated for boys. For a girl, the father's educational level was more closely associated with her performance than was her mother's. Other research findings cited by Lynn (1974) pertaining to the father's education and competence as related to his daughter's achievement are: (1) the more important the father felt his own competence to be, the more likely he was to praise and criticize the performance of his daughters, (2) daughters who excelled in reading and arithmetic had fathers who praised and rewarded their intellectual efforts and seldom criticized them, (3) fathers (and mothers) who did not reject their daughters and fathers who praised them for their accomplishments tended to have daughters who took responsibility for their own successes and failures, and (4) the amount of time the father spends reading was strongly associated with the verbal achievement of his daughters, but not his sons.

Numerous studies point to the socioeconomic background of career-salient women as being important determinants in choosing atypical careers. Cross (1971) found that the higher the educational and socioeconomic level of the parents, the less differentiation was made by the parents between the educational needs of sons and daughters. This finding was confirmed by Standley and Soule (1974), Shea (1971) Walshok (1970) and Yorburg (1974). Shea (1971) and Walshok (1970) particularly emphasized the enrichment provided by highly educated parents in the form of greater access to informational resources, i.e., books, newspapers, library, etc. Zach and Price (1973) cite several other research studies showing the extent to which parents subscribe to traditional sex-role expectations, and the extent to which their children demonstrate sex-typical behaviors, is negatively correlated with socioeconomic status.

Minuchin (1965) and Minuchin, Biber, Shapiro and Zimiles (1969) found that differing philosophies of child rearing and education influence the formation of sex-role attitudes. In their study of nine-year-old middle-class, white, urban children from traditional and modern schools, they found that girls espousing the more culturally stereotyped roles for the female were more likely to attend traditional schools. Traditional schools were defined as those which stressed the mastery of a specific body of established facts, authoritative control by the teacher, the competitive and comparative evaluation of achievement, and fixed conceptions of sex-appropriate roles. Modern schools emphasized an activity oriented curriculum following the developmental trends of the children, democratic control by the teacher, individualized

evaluation of achievement, and open conceptions of sex-appropriate roles.

Children attending the modern schools saw their roles as being more related to their interests and experiences. Then looking at family background, the researchers found that girls from clearly modern families were significantly less sex-typed in play than girls from traditional families or boys.

RESEARCH ON THE RELATIONSHIP BETWEEN COLLEGE TYPE AND CAREER ACHIEVEMENT

In 1973, Tidball first suggested that college type (women's, coeducational) may influence women's career achievement. She studied the educational backgrounds of 1500 career successful women listed in Who's Who of American Women. For the 1100 in this group who were college graduates she compared the number of achievers/1000 women graduates/decade for coeducational colleges and women's colleges. The result showed that approximately twice as many successful career women were graduates of women's colleges. Other findings were: (1) "the correlation coefficient for the percentage of men enrolled and women achievers has a negative value of -0.937 and high statistical significance (p 0.005)" (p. 134); (2) "the number of women faculty and the number of achievers were found to be dependent variables with a statistically significant positive correlation coefficient", (+0.953, p 0.005) (p. 133); and (3) the correlation coefficient "indicates no statistically significant correlation between these two variables" (achievers and men faculty), i.e., "the number of men faculty neither enhanced nor de-

tracted from the output of women achievers" (p. 133).

From these results Tidball urges the enforcement of the affirmative action plans endorsed by most colleges. She believes that the hiring of more women faculty members will provide female students with models of women achievers in non-traditional careers as well as in the traditional careers, thus, leading to more achieving women.

Two major flaws in Tidball's research were noted by Lentz (1977): use of a biased data base and interpretation of a positive correlation between number of achieving women and number of female faculty as having a cause-effect relationship. In spite of these problems, Tidball's work provided the impetus for other researchers to use college type as a variable when studying female career development.

Lentz (1977, 1980b) hypothesized that the pre-college socialization process and the selective recruitment of colleges would result in differences between women's college enrollees and coeducational college enrollees on the factor of career salience. Career salience is defined as a prominent or noticeable desire to pursue a career. Masih (1967) identified three major determinants of the variable: (1) the degree to which a person is career motivated, (2) the degree to which an occupation is important as a source of satisfaction, and (3) the degree of priority ascribed to the occupation among other sources of satisfaction.

Results of Lentz' (1977) study indicate that women entering women's colleges are significantly more career salient than women enrolling in coed-

ucational colleges, particularly at the very selective institutions. In addition, women entering very selective women's colleges give greater weight to career-oriented reasons for their college choice than do their counterparts in coeducational colleges. Thus, we may conclude that college output may partly reflect the input to the institution.

Other researchers (Oates and Williamson, 1978; and Brown, 1978 and 1979) also used college type (coeducational, women's) as a variable when studying female career plans and achievement. Oates and Williamson (1978) studied the production of achievers and the occupational choices of these achievers from three college types: Seven Sisters (a highly selective group of women's colleges frequently compared to the Ivy League colleges), other women's colleges, and coeducational colleges. They found that "women's college achievers (achievers are persons listed in Who's Who in America, 38th Edition, 1974-1975) were distributed among five basic occupational categories in proportions similar to those of their coeducational counterparts and that even within occupational areas, there are few significant differences between the two types of college" (p. 804). Regarding production, they concluded that while women's colleges produce more achievers than do coeducational colleges, most of them come from the Seven Sisters colleges. The question of why this occurs remains unanswered. However, Oates and Williamson suggest that the results may be more a function of family socioeconomic level than admission competitiveness, although selectivity is an important factor.

Using data from the Cooperative Institutional

Research Program conducted by the American Council on Education and the University of California at Los Angeles, Brown (1979) found that institutional variables (selectivity, size, public/private, coeducational/women's, sectarian/nonsectarian) have an impact on the career aspirations of college women when family background, individual attitudes and behavior, and previous career plans are controlled. She reported that, overall, the effects on career plans and self-esteem are positive for highly selective women's colleges. Positive effects on women's career plans are also found for highly selective universities and relatively unselective nonsectarian coeducational colleges. Conversely, the effects on career plans and self-esteem are negative for large, public institutions with low selectivity.

CONTEMPORARY VIEWS OF WOMEN'S COLLEGES

These results seem to substantiate the arguments offered by women's college advocates for the existence of single-sex institutions. Advocates of these institutions (Cole, 1972; Sandler, 1971; Tompkins, 1972; and Truman, 1971) proclaim that women's colleges make a major contribution by providing a supportive environment in which women are free to develop their career potential. They emphasize that at a women's college, women are first class citizens; they don't have to compete either with or for men. The absence of men relieves the pressure to follow the traditional female role and, thus, women have greater potential for fulfilling themselves. Sandler (1971) sees the women's colleges as providing a setting in which women can flourish and develop while examining and reevaluating their lives as

women--a place where they can be "de-conditioned" from the sex-role stereotypes imposed by society.

DIFFERENCES IN WOMEN'S FRESHMAN VERSUS SENIOR CAREER SALIENCE RATINGS AT WOMEN'S AND COEDUCATIONAL COLLEGES

In summarizing her extensive review of the literature on factors related to career commitment, Zuckerman (1976) concluded that there are "too few studies concerned with the relationship between educational goals and women's colleges, influential others and the number and age of children to analyze" (p. 216).

In response to this need Lentz (1980a) conducted a follow up study of her original sample in spring, 1979, when the women graduated from college. She looked for changes in career salience after four years of attendance at the same post-secondary institutions. Analyses of variance indicated that graduates of very selective women's colleges are more career salient than female graduates of comparable coeducational institutions. Significant differences in career salience were also found among coeducational colleges at the three selectivity levels (selective, very selective, highly selective). Comparisons indicate that all groups significantly increased in career salience over the four years of college attendance. However, coeducational colleges achieved greater growth in the percentage of career salient women than women's colleges. Among coeducational colleges, very selective colleges showed almost no growth in the percentage of career salient women while selective colleges had twice the growth of the total coeducational sample.

WOMEN'S CAREER ASPIRATIONS

The fact that women's career goals shift significantly in the four to six year period after high school graduation was documented by Zuckerman (1976). Tangri (1971) showed that there was a drastic shift from role innovation to traditional careers during the first two years after college graduation. Some radical changes in the sex-role ideology of their subjects one year after college graduation was noted by Angrist and Almquist (1977).

Other reseachers (Klemmack and Edwards, 1973; Sutherland, 1978: and Turner, 1964) have studied women's career aspirations. Turner (1964) found some women have goals which can be attained through pursuit of a career, others have occupational goals which are secondary to their other life goals, and some women have no goals regarding paid employment. In addition, certain goals of women can only be realized through the achievement of a husband; for example, wife of a corporate executive or wife of a renowned surgeon. This variety of goals held by women makes their ambition a complex subject to study.

Nevertheless, Sutherland (1978) attempted to study women's professional aspirations. She found that both women's degree aspirations and professional aspirations were lower than those of men. In searching for variables to explain women's low ambition, Sutherland considered two areas: personality variables and monetary resources. Results of her investigation indicate; (1) male students are supported by their families on a grander scale than are female students although they often are the less able scholars and (2) women were characterized as having lower

levels of self-esteem and poorer adjustment than men.

Klemmack and Edwards (1973) sought to explain women's career aspirations, also. They found that the familial variables of father's occupational status, mother's work and family of orientation size are related to women's occupational aspirations. However, these background variables are mediated by dating status, ideal age at marriage and anticipated size of the family of procreation.

Barnett and Baruch (1978) summarized their review of the research on the relative occupational aspirations of males and females with four conclusions. "(1) Girls choose a more restricted, less varied range of occupations than do boys. (2) Occupational choices are highly stereotyped with respect to sex from a very early age. (3) About one-half to two-thirds of school-age girls aspire to be either a teacher, nurse, or secretary, regardless of their social class or race. ...young girls' aspirations are high relative to boys. By the end of high school, however, girls' choices are unchanged; boys' have gone up and surpass those of girls. (4) There is evidence that girls specifically and intentionally avoid high-prestige occupations" (p. 133). While the reviewers are optimistic that this pattern will change as women attain greater representation in high- status occupations, the current picture is distressing.

SUMMARY OF LITERATURE AND RATIONALE FOR PRESENT STUDY

The coeducational versus single-sex education de-

bate has served as the impetus for using college type as a research variable. Researchers have documented the fact that a disproportionate number of female achievers are graduates of women's colleges, particularly from those colleges which are very selective in admissions. Various factors have been suggested to account for the difference: the greater number of female faculty and administrators at women's colleges who serve as role models for the students and family background (socioeconomic level of the family). Another researcher found that highly selective women's colleges have a positive effect on their graduates' self-esteem and career plans when the effects of familial variables, student attitudes and behavior, and previous career plans are controlled.

In earlier research Lentz (1977) found that at the time of college enrollment students at very selective women's colleges were significantly more career salient and attached greater importance to career-oriented reasons for their college choice than did coeducational college women. A follow-up study (Lentz, 1980b) of the same population at the time of graduation showed that graduates of very selective women's colleges had maintained their significantly higher career salience scores when compared to graduates of comparable coeducational institutions.

The results of the studies summarized above do not give us a clear picture of the factors contributing to the disparity in achievement between women's college graduates and coeducational college graduates. If career salience is an important factor it should be monitored over time. In the present research, the third phase of a longitudinal study, the researcher contin-

ues to track this variable for the two college types and three levels of selectivity. In addition, she attempts to identify variables predictive of career salience. Factors included in this search fall into four categories: educational background, career plans, familial influences, and parental background.

The current research attempts to expand our knowledge of women's career development beyond the variable of career salience. A second factor which seems to be important in career success is length of career involvement. The reviewed literature indicates that continuously employed women generally have more education, more desirable job assignments, and greater personal income than noncontinuously employed women. If these factors are indicative of career achievement, it is important to know the variables which predict career involvement immediately after college graduation. This study attempts to identify these variables.

Research on women's career development indicates that women generally hold lower career aspirations than men and that college type and selectivity level influence women's career aspirations. Thus, career aspiration level was used as the dependent variable in seeking to verify differences on this variable between college types and among selectivity levels.

STATEMENT OF RESEARCH QUESTIONS

This research study was designed to respond to four major questions.

1. Is there a significant difference

in career salience between women's college graduates and coeducational college graduates one year after graduation?

2. What factors predict career salience?

3. Which variables can be used to predict career involvement one year after college graduation?

4. Is there a relationship between the level of career aspiration and type of college attended (women's, coeducational)?

Chapter 3

HOW THE STUDY WAS CONDUCTED

SUBJECTS

The subjects were female graduates of six women's colleges and nine coeducational colleges. The colleges from which the subjects were drawn consisted of small, private, liberal-arts institutions located in the northeastern United States. Although some of the colleges maintain their historical denominational affiliations, only those which operate as non-demoninational institutions were included in the study. All of the colleges had a yearly comprehensive fee greater than $3,500.00 and offered a similar type of program when they were selected for the initial phase of this longitudinal study in 1975.

Procedures Used to Select the Colleges

Descriptions in Barron's Profiles of American Colleges (1973) were used to select the women's colleges and coeducational colleges which fit the criteria stated above regarding size, type of

college, type of program, geographic location and cost. The level of admission competitiveness (selective, very selective, highly selective) for each college was identified. Barron (1973) defines these levels of admission competitiveness as follows:

> Selective: This category is a wide one, covering colleges that enroll students with median SAT test scores from the upper 400s (above 450) to about 550 or from 21 to 23 on the ACT. Many of these colleges require students to have school averages of B- or better, although other colleges state a minimum of C+ or C. Generally these colleges prefer students in the top half of the graduating class.
>
> Very Selective: The colleges in this category admit students whose averages are no less than B- and who rank in the top 30 per cent to 50 per cent of their graduating class. They report that their freshmen have median scores in the 550 to 600 range on the SAT and between 23 and 26 on the ACT.
>
> Highly Selective: Colleges in this group look for students with grade averages of B+ to B and accept most of their students from the top 20 per cent to 30 per cent of the high school class. Median scores of freshmen enrolled in these colleges range from 600 to 675 on the SAT and from 26 to 28 on the ACT. (p. vii)

The Colleges which fit the criteria of the study were compared at each level of admission competitiveness using Astin's (1965) five Estimated Freshman Input Factors and eight Scores on the

Environmental Assessment Technique. Thus, the thirteen variables used for identification of college samples are:

Estimated Freshmen Input Factors
- Intellectualism
- Estheticism
- Status
- Pragmatism
- Masculinity

Scores on the Environmental Assessment Technique (EAT)
- Estimated Selectivity
- Size
- Realistic Orientation
- Scientific Orientation
- Social Orientation
- Conventional Orientation
- Enterprising Orientation
- Artistic Orientation

Colleges were compared by graphing the T-score of each variable for each college being considered for the study on a grid designed by Astin (1965). Those women's colleges at the highly selective level were graphed. The three colleges that appeared to be most similar were selected by the researcher to be solicited for participation in the research study. The same procedure was followed for each type of college at each level of admission competitiveness to ascertain the eighteen colleges that would best fit the research design. Table 1 shows the T-scores of the colleges in each group for the thirteen variables. Lentz' 1977 report contains more details about this selection process.

Within each cell the coeducational colleges are

Table 1

T-Scores on Astin's 13 Variables
for the Colleges Selected for Participation in the Study

	Freshman Input Factors					Environmental Assessment Technique							
	INT	EST	STA	PRA	MAS	SEL	SIZ	REA	SCI	SOC	CON	ENT	ART
Highly Selective - Women's													
College 1 **	71	74	69	35	38	71	48	44	54	43	44	57	69
College 2 **	66	68	66	41	36	69	53	47	62	44	45	58	60
College 3 **	68	72	73	31	36	71	55	46	49	45	46	57	69
Highly Selective - Coed.													
College 1	61	58	64	48	58	61	52	45	55	47	48	61	55
College 2	63	58	66	50	57	66	48	46	63	46	48	65	41
College 3	61	52	65	48	57	66	50	47	62	40	50	66	53
Very Selective - Women's													
College 1 *	59	70	69	36	41	59	41	40	48	46	45	62	65
College 2	62	70	67	36	37	66	46	44	53	48	42	59	61
College 3	41	60	52	38	28	60	44	46	46	53	51	46	63
Very Selective - Coed.													
College 1	54	39	59	56	57	61	55	52	63	41	55	60	11
College 2	57	48	55	52	47	59	47	48	64	46	57	55	15
College 3	58	51	60	56	53	62	49	54	66	38	53	61	15
Selective - Women's													
College 1	40	60	52	38	30	51	39	42	45	58	35	48	63
College 2	37	55	43	42	28	52	41	45	60	62	42	47	38
College 3	54	65	62	36	31	64	42	44	49	48	44	54	68
Selective - Coed.													
College 1	40	38	46	48	46	51	47	46	55	50	63	43	15
College 2	41	39	57	46	54	52	46	41	52	47	64	60	11
College 3	45	35	53	50	56	54	52	44	59	48	60	55	11

* This college did not participate in the 1975 study
** This college did not participate in any of the studies

similar on all of Astin's (1965) variables. The women's colleges are comparable on the criterion variable, selectivity, within each cell. They differ on some of the other variables by more than one standard deviation within a cell, but the overall configuration of the colleges within each cell is similar.

Procedures Used to Solicit College Participation in 1975

After this initial analysis of colleges, the researcher wrote to the president of each college briefly explaining the study and requesting the opportunity to meet with him/her to discuss the possibility of the college participating in the research. Each letter was followed by a telephone call to confirm an appointment with the president or his/her designee. Interviews were obtained at sixteen of the eighteen colleges.

The researcher visited the sixteen colleges exhibiting an interest in discussing the study. At the time of each visit the researcher explained the study in greater detail--how she became interested in the topic, her hypotheses, and her research design. She requested the participation of the college in carrying out the research; i.e., the college would request its entering class of women to respond on a voluntary basis to a questionnaire provided by the researcher.

Of the sixteen colleges visited, fourteen agreed to participate in the study: nine coeducational colleges, three women's colleges at the selective level, and two women's colleges at the very selective level.

Efforts were made to recruit alternate colleges, which met the requirements of the study, in order to complete the design. These attempts were unsuccessful; therefore, the initial phase of this longitudinal study was conducted with those colleges already in agreement.

Procedures Used to Solicit College Participation in 1979 and 1980

In early 1979, the researcher wrote to the presidents, or previous designees, of the fourteen colleges which participated in the 1975 study and requested their cooperation in the conduct of a follow-up study as the original subjects graduated from college in Spring, 1979. The colleges were told of the Women's Educational Equity Act funding received for this study which focuses on factors influencing women's career development during the first post-baccalaureate year. The desireability of having 1979 data on the subjects in order to enhance the 1980 study was explained. To obtain the 1979 data the researcher agreed to underwrite all costs.

Letters soliciting participation in the 1979 and 1980 studies were also sent to the four colleges which had not cooperated in the 1975 study.

All letters were followed by a telephone call. This solicitation resulted in the participation of all the colleges in the original study, plus a third women's college at the very selective level of admissions.

The distribution of colleges and subjects for the phases of the longitudinal study completed to date are shown in Table 2.

Table 2

Distribution of Colleges and Subjects

	Number of Colleges			Number of Subjects		
	1975	1979	1980	1975	1979	1980
Women's Colleges						
Highly Selective	0	0	0	0	0	0
Very Selective	2	3	3	371	320	282
Selective	3	3	3	306	187	148
Coeducational Colleges						
Highly Selective	3	3	3	393	260	251
Very Selective	3	3	3	357	251	252
Selective	3	3	3	386	266	233

INSTRUMENTATION

The questionnaire items which constituted the main data collection system used in this research were developed by Shirley Angrist for her longitudinal study of career salience among the women in the class of 1968 at Margaret-Morrison College of Carnegie-Mellon University. Her instrument varied from year to year to reflect prevailing issues and concerns, with certain items remaining constant. The same is true of the questionnaire used in this longitudinal study. For example, when the women entered college in 1975 of interest was the career they intended to pursue; in 1979 interest shifted to the stability of their career choice; and in 1980 the concern of the researcher was whether or not they had been able to obtain a job in the career of their choice. These, and similar concerns, relating to the status of the subject's career development made questionnaire modification necessary for each phase of the study.

Two other modifications were made to facilitate use of the questionnaire with a large sample of mail respondents and to increase response reliability. (1) The questions were logically sequenced and grouped in major categories which were hypothesized to influence career development. In the 1980 study five major categories of questions were asked: educational background, career plans, familial influences on careers, parental background, and reactions to the study. (2) Open-ended questions were rewritten as closed questions; i.e., specific response alternatives were given from which the subject could select the most appropriate response for her.

The original questionnaire contained eleven items that Angrist identified as forming a "Life Style Index," a measure of women's career salience. In each phase of this study the questions forming this index were kept intact and served as the dependent variable to test for career salience.

Angrist (1971-72) computed the test-retest reliability of the Life Style Index as .79 when the freshman through junior indexes were used. When the sophomore through senior indexes were used, the test-retest reliability was .88.

This researcher performed an item analysis on the Life Style Index. The point biserial correlations indicate that one item has an extremely low correlation with the criterion score, suggesting that the item is poor in discriminating between career salience and non-career salience. The other ten items of the index have point biserial correlations between the recommended preference level of .30 and .79 (Ebel, 1965; and Lindquist, 1951). The split-half reliability of the test was calculated as .78 while the Kuder-Richardson reliability coefficient, the mean of all split-half coefficients resulting from different splittings of the test, was .685.

Procedures

Procedures for the 1975 Study

During the summer of 1975, the researcher mailed the appropriate number of questionnaires to each college. The college contact person then arranged for presentation of the questionnaire to

the first-year women. Administration of the questionnaire was handled by the fourteen participating colleges in accordance with instructions given by the author of this report. Each college mailed the completed but unscored, anonymous questionnaires to the author.

One college differed somewhat from the other colleges. This college mailed the survey instrument to the entering freshmen women with a memorandum from the Director of Student Development asking them to complete the questionnaire and return it to the college in the postage-paid envelope. Upon return of the questionnaires by the students, the unopened envelopes were placed in a box which was forwarded to the researcher.

Two major methods of questionnaire administration were followed by the other thirteen colleges. Seven colleges chose to administer the questionnaires at residence hall or floor meetings. The residence advisors explained to the freshmen women the reason for the questionnaire and the importance of their filling it out. They distributed the questionnaires to the women who either completed them at that time or returned them to the residence advisors within a specified time, usually less than two weeks after the beginning of the fall semester. After the deadline, the questionnaires were given to the college contact person, who returned them to the researcher.

Six colleges administered the questionnaire as an integral part of freshman orientation. At five of these colleges time was set aside for questionnaire responding and the instrument used in this study was administered then. At the sixth college the questionnaires were distrib-

uted at an orientation meeting with the dean and returned after completion to the dean's office. The dean in charge of orientation at each college mailed the completed questionnaires to the researcher.

Although the questionnaires were administered under varying circumstances by the participating colleges, all subjects had the same instructions, which appeared on the front of the questionnaire. Inspection of the completed questionnaires did not reveal any effects as a function of different college procedures in administering the questionnaires.

An analysis of the response rate indicated that 67 per cent of the total sample of freshman women within the fourteen colleges responded to the research questionnaire. Sixty-one questionnaires were incomplete, giving a usable response rate of 65 per cent.

Procedures for the 1979 Study

The questionnaires, with a cover letter, were mailed to the fifteen colleges by the researcher. In late April or early May, the college contact person distributed the questionnaires to the senior women and requested their cooperation in the study. Usually this request took the form of adding a second cover letter in which the contact person related the college's support of the study and stated how data from the study would assist the college in meeting the needs of its students.

At fourteen colleges the questionnaires were returned to the college contact person who, in

turn, forwarded them to the researcher. The other college requested its women to return the research instrument to the researcher using a business reply envelope supplied by the researcher.

A response rate of 37.4 per cent was received from the initial solicitation of subjects. A follow-up letter with a second questionnaire, and a postage-paid envelope, was sent to all non-respondents during the summer months. A final response rate of 56.4 per cent was obtained.

Procedures for the 1980 Study

Using updated address lists furnished by the fifteen colleges, direct mailings were made to the subjects. In late March, 1980, a letter was sent to the entire sample explaining the third phase of the study, requesting participation, and stating that they would be receiving a questionnaire soon. Two weeks later the survey instrument, with a postage-paid return envelope, was mailed. Reminders were sent to nonrespondents at two to three week intervals. In the event the questionnaire was misplaced or lost in the mail, the second reminder included another copy of the questionnaire and a return envelope. The third, and final, reminder set a date in mid-June as the deadline for return of questionnaires. A response rate of 53.0 per cent was obtained.

DATA ANALYSES

Data analyses will be discussed separately for

each research question.

Question 1

To determine whether there is a difference in career salience between women's college graduates and coeducational college graduates one year after graduation, least squares analyses of variance were used. A two-way least squares analysis of variance was performed to compare coeducational colleges and women's colleges at the selective and very selective admission levels on the variable of career salience. Due to the empty cell for the highly selective women's colleges, a one-way least squares analysis of variance was carried out on coeducational colleges to determine whether there are differences in career salience among the three selectivity levels.

Question 2

Factors which predict career salience were determined through regression analysis. Initially, data on selected items hypothesized to discriminate between career salient women and non-career salient women were cross tabulated with high, median, and low scores on the Life Style Index. Those items which showed at least a 5 per cent difference in number of respondents between the high and low scorers were used in the regression analysis. Separate regression analyses were also carried out on the attitudinal variables and the behavioral variables.

Question 3

Discriminate analysis was used to identify variables which are predictors of career involvement at the termination of the first post-baccalaureate year. Career involvement was defined as being either employed in the career of one's choice or enrolled in graduate or professional school in order to continue preparation for employment in the chosen career. Two discriminate analyses were carried out. Analysis 1 sought to discriminate between women who are career involved and those who are not career involved.

Commitment to a career as measured by desire in an ideal world to work was a factor in the second analysis. Four groups were identified and the discriminate functions differentiating among the groups determined by discriminate analysis. The four groups were: women who are currently career involved and who in an ideal world want to work, women who don't want to work but are career involved now, women who are not career involved now but who want to work, and women who are not career involved and prefer not to work in the future.

Question 4

To determine whether there is a difference in level of career aspiration between college types and among selectivity levels, least squares analyses of variance were performed. These analyses were similar to those used to respond to question 1. College type and college selectivity level served as independent variables while aspiration level, measured by an organizational model, was the dependent variable.

Analyses of variance were also performed to compare career aspiration levels, innovativeness of career choice and pursuit of graduate or professional education among high, median, and low levels of career salience. Scores of 0 to 6.99 on the Life Style Index were defined as low career salience, scores of 7.00 to 9.99 represented median career salience, while scores of 10.00 and above equaled high career salience.

Chapter 4

CAREER SALIENCE
ONE YEAR AFTER COLLEGE GRADUATION

A review of the literature on the impact of college type on women's career achievement and/or career goals reveals mixed findings. Studies of women who have been recognized for their success by being listed in Who's Who of American Women or Who's Who in America indicate that women's college graduates are more likely to be listed. However, these women tend to be graduates of a small group of highly selective institutions rather than distributed evenly among selectivity levels.

In studying the impact of colleges on women's career aspirations another researcher found a positive effect for highly selective women's colleges when background variables, attitudes and behavior, and previous career plans were statistically controlled.

Previous research conducted by this researcher on the relationship between women's career sali-

ence, college type and selectivity of college indicates that at the time of college enrollment women's college students are more career salient than students enrolling in coeducational colleges, particularly those at the very selective level. While women's college students maintained their lead in career salience over the four years of college, all subgroups of the study had higher career salience ratings at the time of graduation. Among selectivity levels, it is generally the case that career salience is in direct proportion to the selectivity of the college.

The intent of the current study is to further our knowledge of women's career salience and how it varies over time for subgroups defined by college type and selectivity level. The major question to be addressed is:

> Is there a significant difference in career salience between women's college graduates and coeducational college graduates one year after graduation?

This question can be restated as three operationally defined sub-hypotheses.

> There is a significant difference in career salience between women graduated from women's versus coeducational colleges.
>
> There is a significant difference in the career salience of women graduated from colleges at different levels of admission competitiveness.

Differences in career salience between college types are significantly modified by the admission competitiveness of the colleges.

DATA ANALYSIS AND RESULTS

The means and standard deviation of each cell on the dependent variable "career salience," as measured by Angrist's Life Style Index, is shown in Table 3 for each phase of the longitudinal study. Career salience ratings for the entire sample and for each cell of the research design increased from the freshman to senior years in college. During the first post-graduate year ratings decreased.

A two-way least squares analysis of variance was used to compare coeducational and women's colleges at the selective and very selective admission levels. Results of this analysis indicate a significant difference between college types on the variable of career salience, $F_{(1,911)} = 10.726$, $p < .001$. Women's college graduates are more career salient than female coeducational college graduates. A priori orthogonal tests using the t-ratio resulted in a significant difference in career salience between graduates of very selective women's colleges and very selective coeducational colleges, $t = 2.74$, $p < .01$. This is consistent with the researcher's 1975 and 1979 study results.

No differences were found between selectivity levels in the two-way analysis of variance nor was there an interaction between college type and selectivity level. This suggests that career salience is regressing toward a mean for

Table 3

Mean Scores for Career Salience
by College Type and Level of Admission Competitiveness

	1975		1979		1980	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
Women's Colleges						
Very Selective	8.22	2.18	9.12	1.90	8.45	2.06
Selective	7.51	2.29	8.68	2.05	8.24	2.26
Coeducational Colleges						
Highly Selective	7.61	2.50	8.85	1.98	8.46	2.12
Very Selective	7.20	2.51	8.03	2.33	7.90	2.45
Selective	7.06	2.60	8.38	2.39	7.79	2.49

both college type and selectivity level. Table 3 shows that the first post-graduate year has had a moderating effect on career salience.

Significant differences in career salience were found among the three selectivity levels for co-educational colleges using a one-way least squares analysis of variance. Using the t-ratio, it was determined that the differences occur between highly selective colleges and very selective colleges, $t = 3.15$, $p < .01$, and between highly selective colleges and selective colleges, $t = 3.696$, $p < .01$. Again, this result is consistent with the 1979 study. However, in this study there is no significant difference in career salience between very selective and selective colleges. Means are now similar for these two groups. This can be seen on Graph 1, which shows the career salience scores for each cell of the research design at three points in time -- 1975, 1979, 1980.

Since subjects participated anonymously in the 1975 phase of this longitudinal study, it is not possible to analyze the data using 1975 career salience scores as covariates in determining whether there has been a significant change in career salience over the five year period. However, t-tests were carried out to assess changes that may have occurred from 1979 to 1980 for those subjects who responded to the survey instrument in both of those years ($N = 746$). Results of these tests for each cell of the research design are given in Table 4. Only one group showed a significant change in career salience -- graduates of very selective women's colleges.

Table 4

Summary Table of T-Tests
on Cell Means of Career Salience for 1979 and 1980

	Means		
	1979	1980	T
Women's Colleges			
Very Selective	8.94	8.45	2.14 *
Selective	8.72	8.20	1.74
Coeducational Colleges			
Highly Selective	8.73	8.58	.66
Very Selective	7.95	7.82	.53
Selective	8.38	7.95	1.62

* $p < .05$

DISCUSSION

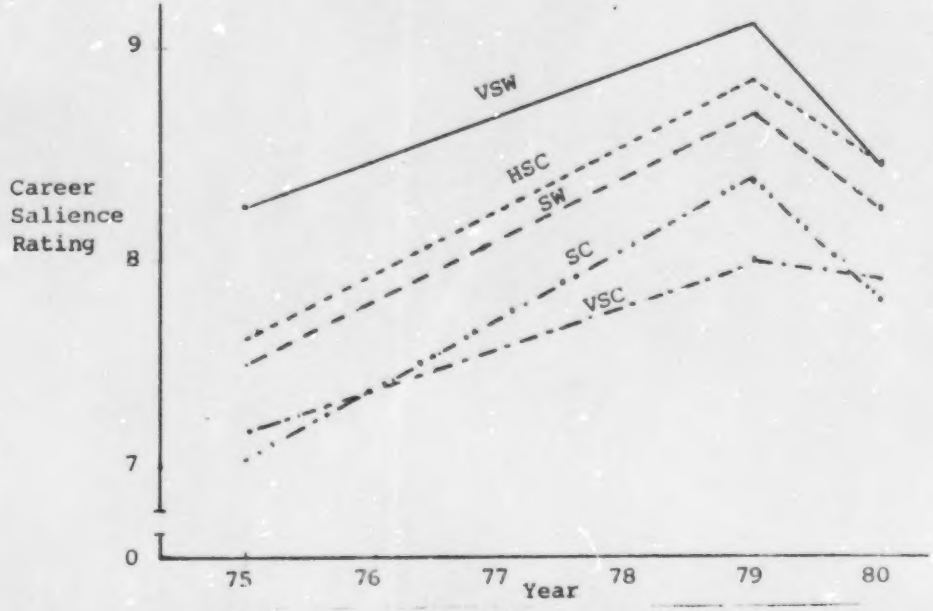
Career salience is not a stable variable. Graph 1 shows that career salience increases from college entrance to graduation for each sub-group of the research design and that the range of group means is similar at these two points in time. One year after graduation career salience has declined. However, the groups are more similar in their ratings of career salience as their mean scores have half the range found in the earlier studies.

In spite of the greater similarity among all subgroups, analyses of variance resulted in a significant difference between college types. A priori tests indicate that graduates of very selective women's colleges continue to maintain their higher career salience when compared to graduates of very selective coeducational colleges. Among coeducational institutions, graduates of highly selective colleges are significantly more career salient than graduates of the other two subgroups (very selective and selective colleges).

In view of the positive effects proclaimed for women's colleges, it is recommended that this longitudinal study be replicated in order to establish whether the effects found are unique to this research. Two questions which need to be addressed are: What are the social processes which contribute to fluctuations in career salience? and What impact does college have on the career salience of its graduates? Moreover, the maintenance of career salience ratings after college is problematic. What factors account for the sudden decrease? Several mediating factors are suggested from the literature

Graph 1

Graph of Career Salience Ratings
by College Type and Selectivity Level



(Klemmack and Edwards, 1973) and data collected in this research: dating status, marriage, birth of children, and the economic picture of the United States in 1980.

Chapter 5

PREDICTING CAREER SALIENCE

In pursuing her longitudinal study of women's career commitment with students at Margaret-Morrison College, Angrist (1971-72) found "that they all plan to work at some time in their lives, but a minuscule few are prepared to plan for work as a central part of adult life equivalent to the centrality of family" (p. 29). She hypothesized that one factor relevant to this phenomenon is women's socialization which teaches them to be flexible and open to the myriad roles they will be expected to play as adults. This same factor, however, tends to delay the choosing of an occupation and commitment to a career. Thus, when Angrist developed the Life Style Index to measure women's career aspirations she believed career aspirations must be viewed as basic to life style choices and commitments. In fact, she began with the assumption that women committed to a career are strongly motivated to prepare for and work in their chosen occupation. In addition she hypothesized that the desire to work must be strong enough for the woman to view herself as a career

woman and to develop a life style that permits her to work; i.e., she arranges her activities, family and education to facilitate pursuit of her career.

Masih (1967) defined career salience in a manner similar to Angrist's life style. She identified three major determinants of the variable: (1) the degree to which a person is career motivated, (2) the degree to which an occupation is important as a source of satisfaction, and (3) the degree of priority ascribed to the occupation among other sources of satisfaction.

The Life Style Index measures women's career salience using eleven attitudinal variables relating to pursuit of post-baccalaureate education, desire to work versus participate in clubs, hobbies, or volunteer activities, desire to work when various combinations of children's ages and adequacy of husband's salary are considered, and goal for fifteen years hence. It is the goal of this study to determine additional attitudinal and behavioral factors which predict career salience one year after receipt of the baccalaureate degree. Three questions are explored:

1. Which attitudinal variables of the woman or her parents are predictive of career salience one year after college graduation?

2. Which behavioral variables related to the woman or her parents predict career salience at the end of the first post-baccalaureate year?

3. Which variables (attitudinal and behavioral) are predictive of career salience one year after college graduation?

DATA ANALYSIS AND RESULTS

Attitudinal and behavioral items from the questionnaire were cross tabulated with high, median, and low scores on the Life Style Index. Fifteen attitudinal variables (Table 5) and nineteen behavioral variables (Table 6) which showed at least a 5 percent difference in the number of respondents between the high and low scorers were identified for use in regression analyses.

In the first analysis only attitudinal variables were entered into the multiple regression analysis. Seven variables, (Table 7) met the criteria set by the tolerance level and the F-test; five of the factors were found to be significantly related to career salience. The career salient woman attaches importance to having a career and she is certain she'll pursue her chosen occupation, which uses her special talents and interests. She favors women's demands for equality and believes this equality should carry over to the home where household tasks are shared.

Behavioral variables predictive of career salience were identified in the second analysis, (Table 8). Again the tolerance level and F-test permitted seven variables to enter the regression equation; five variables contributed significantly to the prediction of career salience. The career salient woman can be characterized as having a mother who works and does not criticize

Table 5

Attitudinal Variables Used in Regression Analyses

A. Certainty of pursuing chosen occupation
B. Important that occupation has high prestige
C. Important that occupation involves work with people rather than alone or with "things"
D. Important that occupation has prospects of high income
E. Important that occupation allows use of special abilities and interests
F. Having a career is important for personal satisfaction
G. Raising children is more a mother's job than a father's
H. Except in special cases, the wife should do the cooking and house cleaning and the husband should provide the family with money
I. If the man is working to support the family, his wife has no right to expect him to work when he's home
J. A man who helps around the kitchen is doing more than should be expected
K. A man ought to feel free to relax when he gets home from work
L. Favor women's demands for equality
M. Important to mother that you pursue a career
N. Important to father that you graduated from college
O. Important to father that you pursue a career

Table 6

Behavioral Variables Used in
Regression Analyses

A. Post-baccalaureate study
B. Has chosen a specific occupation
C. School level when career choice was made
D. Difficulty in finding present job
E. Mother works
F. Educational level of mother
G. Mother dismisses my problems as unimportant
H. Mother often criticize me unfairly
I. Mother is a good listener
J. Educational level of father
K. Father gives me advice
L. Father dismisses my problems as unimportant
M. Father offers sympathy and affection
N. Father hard to talk to
O. Father helps me with my problems
P. Father is a good listener
Q. Career choice influenced by husband
R. Career choice influenced by college teacher
S. Career choice influenced by close male friend

Table 7

Regression of Career Salience on Attitudinal Variables

Independent Variable	B	Beta	F	p
Importance of having a career	-1.08	-0.29	79.454	.01
Equality of household tasks	-0.67	-0.26	62.894	.01
Equality of sexes	-0.31	-0.11	10.676	.01
Certainty of pursuing her chosen occupation	-0.18	-0.05	2.789	.01
Occupation uses special abilities and interests	0.18	0.05	2.478	.05
Occupation has prospects of high income	0.095	0.04	1.503	ns
Importance to mother that she pursue career	-0.098	-0.04	1.354	ns

R^2 = 0.272 F = 44.033 df = 7/827

Table 8

Regression of Career Salience on Behavioral Variables

Independent Variable	B	Beta	F	p
Mother works	-0.31	-0.12	10.678	.01
Post-baccalaureate study	-0.56	-0.12	9.651	.01
Influence of husband on occupational choice	-0.79	-0.06	2.567	.05
Mother does not critize unfairly	0.24	0.11	5.309	.01
Father dismisses problems as unimportant	-0.16	-0.07	3.319	.01
Influence of college teacher on occupational choice	0.72	0.04	1.241	ns
Mother is a good listener	0.097	0.05	1.021	ns

R^2 = 0.045 F = 4.563 df = 7/683

her daughter unfairly, she has a father who sometimes dismisses her problems as being unimportant, and she is likely to have continued her education/training during the first post-baccalaureate year. She generally has not been influenced in her career choice by her husband, primarily because she usually is not married at this point in time.

When career salience was regressed on both the attitudinal and behavioral variables fourteen variables entered the regression equation: six attitudinal and eight behavioral, (Table 9). Five significant variables in the equation related to the career salient woman herself. It is important to the woman that she have a career and she tends to report a high level of certainty in pursuing her career. In order to better prepare herself for her career she often has continued her professional education/training during her first post-graduate year. Finally, the career salient woman favors equality of the sexes and believes that this equality pertains to sharing household tasks as well as equality in the pursuit of her career goals.

Four of the six variables related to mother's attitudes and behaviors which were entered into the multiple regression analysis, were found to be significantly related to career salience. Mothers of high career salient women tend to work although their level of formal education is generally slightly lower than that of the mothers' of low career salient women. These mothers are perceived to sometimes serve as good listeners and they seldom criticize their daughters unfairly.

While nine variables dealing with father's atti-

tudes and behaviors were entered into the multiple regression analysis only one, father's educational level, entered the regression equation. This factor was not significantly related to career salience.

DISCUSSION

The factors which repeatedly enter the regression equation and reach significance indicate that the career salient woman has the following characteristics:

- considers having a career important to her personal satisfaction
- believes in sharing household tasks with her spouse
- supports equality of the sexes
- feels certain that she'll pursue her chosen occupation
- has continued her education during the first post-baccalaureate year
- has a mother who works
- has a mother who does not criticize her unfairly.

Thus, Angrist's original assumption is supported: Career salient women are strongly motivated to prepare for and work in their chosen occupation. One year after college they report that having a career is important for their personal satisfaction, that they have continued preparation for their careers and that they feel certain they will pursue their careers.

It is too soon to determine whether number and age of children and husband's salary are valid predictors of career salience. Perhaps twenty

Table 9

Regression of Career Salience
on Attitudinal and Behavioral Variables

Independent Variable	B	Beta	F	p
Importance of having a career	-1.06	-0.28	62.843	.01
Equality of household tasks	-0.65	-0.25	48.594	.01
Equality of sexes	-0.32	-0.11	9.339	.01
Mother works	-0.24	-0.09	7.956	.01
Post-baccalaureate study	-0.26	-0.05	2.744	.01
Certainty of pursuing her chosen occupation	-0.18	-0.05	2.231	.05
Influence of college teacher on occupational choice	0.74	0.04	1.759	ns
Mother does not criticize unfairly	0.18	0.07	4.152	.01
Mother is a good listener	0.12	0.06	2.088	.05
Occupation uses special abilities and interests	0.18	0.05	1.971	ns
Occupation has prospects of high income	0.11	0.04	1.741	ns
Educational level of mother	-0.11	-0.06	2.452	.05
Influence of husband on occupational choice	-0.49	-0.04	1.330	ns
Educational level of father	0.06	0.04	1.138	ns

$R^2 = 0.290$ F = 19.721 df = 14/676

years hence the entire Life Style Index can be validated on this sample.

The women in this study are similar to the Role Innovators studied by Tangri (1972). For both groups mother's working has had an impact on daughter's career-orientation; for Tangri's sample, this was the best predictor of role innovativeness found among a group of parental background variables. The Role Innovator tends to choose a vocation for personal satisfaction and is more concerned with whether the important male in her life will accommodate her career than that he be a "good family man". These characteristics seem to typify this sample also. The women support equality of the sexes and sharing of household tasks which indicates their concern that a husband be aware of their professional needs. Is it possible that career salience and role innovation are correlated? This question will be explored in Chapter 7.

Chapter 6

PREDICTING CAREER INVOLVEMENT ONE YEAR AFTER COLLEGE GRADUATION

Women are increasingly entering the workforce. Almost all of the women, 99.3 percent, participating in this study expect to hold paying jobs at least part of their adult lives. This is consistent with Census Bureau data which indicates that the more education a woman has the more likely she is to be employed outside the home and the smaller her family of procreation.

Continuously employed women have been found to have more education, more desirable job assignments and greater personal income than noncontinuously employed women (Vetter & Stockburger, 1977). Since a high percentage of the sample of women in this study expect to enter the labor market and since continuity of employment appears to be a pertinent variable related to rewards received by women in their chosen occupation, it is important to identify the factors which are predictive of career involvement one year after receipt of the baccalaureate degree.

The goal of the current study is to determine the variables which are predictive of career involvement at this early stage of career development. Because of the time frame of the study (one year after college graduation) it was recognized that career involvement might take several forms. Therefore, career involvement was defined as either being employed in the field in which one prefers to work or being enrolled in graduate or professional school in order to prepare for employment in the preferred field. Noncareer involved women were defined as those not meeting the criteria for classification as career involved.

It was hypothesized that many of the variables predictive of career salience, might also be related to career involvement. Thus, variables related to educational background, career plans, family influences, and parental background were proposed as correlates of career involvement. In addition, the subjects' career salience scores at the time of graduation were hypothesized to be related to career involvement one year hence.

A second goal of the study is to differentiate between women in the two groups (career involved, noncareer involved) on a second variable: commitment to working. Thus, functions differentiating between four groups will be determined: career involved women who in an ideal world prefer to work continuously; career involved women who do not prefer to work; noncareer involved women who prefer to be employed continuously; and noncareer involved women who do not prefer to work.

DATA ANALYSIS AND RESULTS

To determine the factors predictive of career involvement one year after college graduation, discriminant analysis was used. Career involvement was defined as either being employed in the career of choice or attending graduate, medical or law school in preparation for the career of choice. Thirty-seven variables were used in the analysis, Table 10. These variables involved five categories: educational background, career plans, influence of family of procreation or attitudes related to that family, parental background, and career salience in 1979. In order to include career salience from 1979 as a variable, the sample was narrowed to the 746 subjects who participated in the 1979 and 1980 phases of the study. This pool of cases was sampled in order to obtain 231 cases in each group (career involved, noncareer involved) for the analysis.

The standardized canonical discriminant function coefficients for the variables which entered the discriminant function are reported in Table 11. The canonical correlation between the predictor variables and the two group membership variables is 0.4904.

The group centroids for career involved and noncareer involved women are -0.562 and 0.562 respectively. Use of the discriminate function for classification purposes reveals that 80.5 percent of the career involved women can be correctly predicted. Prediction of the noncareer involved women is less accurate, 64.5 percent.

Career involved women tend to have high cumulative grade point averages in their undergraduate

Table 10

Variables Used in Discriminant Analysis

Educational Background

Cumulative grade point average at graduation

Career Plans

Have actively chosen an occupation
Traditionality of chosen occupation
Certainty of pursuing chosen occupation
Occupation has high prestige
Occupation involves work with people rather than alone or with things
Occupation has prospects of high income
Occupation allows for use of special abilities and interests
Occupation provides stable, secure, future
Occupation suits parent's ideas of success
Occupation involves helping
Attaches importance to having a career
Level of career aspiration

Family Influences

Marital status
Number of children
Support of women's equality

Parental Background

Mother

Mother is employed
Traditionality of mother's occupation
Mother's educational level
Important to mother that daughter pursue a career
Mother gives daughter advice
Mother dismisses daughter's problems as unimportant
Mother hard to talk to
Mother helps daughter with her problems
Mother often criticizes daughter unfairly
Mother is a good listener
Mother has little free time

Table 10 (Continued)

Father

Father's educational level
Important to father that daughter pursue a career
Father gives daughter advice
Father dismisses daughter's problems as unimportant
Father hard to talk to
Father helps daughter with her problems
Father often criticizes daughter unfairly
Father is a good listener
Father has little free time

Career Salience

1979 score

Table 11

Standardized Discriminant Function Coefficients
for Career Involvement One Year after College Graduation

Variable	Coefficient
Cumulative grade point average	0.14985
Have actively chosen an occupation	0.80623
Importance attached to having a career	0.18576
Number of children	-0.11989
Important to mother that daughter pursue a career	0.19926
Occupation has high prestige	-0.22556
Occupation involves work with people rather than alone or with things	-0.17470
Occupation has prospects of high income	0.24659
Occupation provides stable, secure future	-0.23645
Mother often criticizes daughter unfairly	0.27881
Innovativeness of mother's occupation	-0.11397

years and attach importance to having a career. They are more likely than noncareer involved women to have made an active choice regarding the occupation they will pursue. Factors which are important to career involved women in choosing their occupations are: whether the occupation involves work with people; provides a stable, secure future; and has high prestige. They are relatively less concerned with whether the occupation has prospects of high income.

Mothers are important in predicting graduate women's career involvement. Career involved women tend to have mothers pursuing traditional occupations. Maternal attitudes also play a role in discriminating between career involved and noncareer involved women. Daughters who are career involved perceive that it is important to their mothers that they pursue a career. However, they do not appear to have a close relationship with their mothers since they perceive their mothers as criticizing them unfairly.

A second discriminant analysis was performed to discriminate between the career involved and noncareer involved women who, in an ideal world, prefer to spend their time working and those who prefer to concentrate on home/family or occupy their time with hobbies, clubs, volunteer work, etc. Thus, four groups were used in the analysis: career involved-prefer to work; career involved-prefer not to work; noncareer involved-prefer to work; noncareer involved-prefer not to work. The thirty-seven variables entered into the analysis were the same as for the first analysis. The sample size was reduced to 240 in order to have equal groups of 60 subjects.

Three discriminat functions were obtained. The

first two functions are significant and account for 90.87 percent of the variance. The standardized canonical discriminant function coefficients and the canonical correlations for these functions are reported in Table 12.

Plotting the group centroids in a plane graphically illustrates the differences between the four groups, Graph 2. Function I discriminates clearly between the career involved women who prefer to work and the noncareer involved who do not want to work. Career involved women who prefer not to work and those who are not currently working but prefer to work are separated by Function II.

Use of the discriminant functions to classify subjects indicates that 60.0 percent of the career involved women who prefer to work can be correctly grouped. Membership in the other three groups can be predicted with 55.0 percent accuracy.

DISCUSSION

Career involved women who prefer to work tend to be those who have actively chosen the occupation they wish to pursue rather than stumbled into the occupation by default. They are likely to have high grade point averages in the undergraduate years and to have scored high on career salience at the time of college graduation, which confirms the fact that for their own personal satisfaction they place a great deal of importance on having a career.

The career involved women who prefer not to work

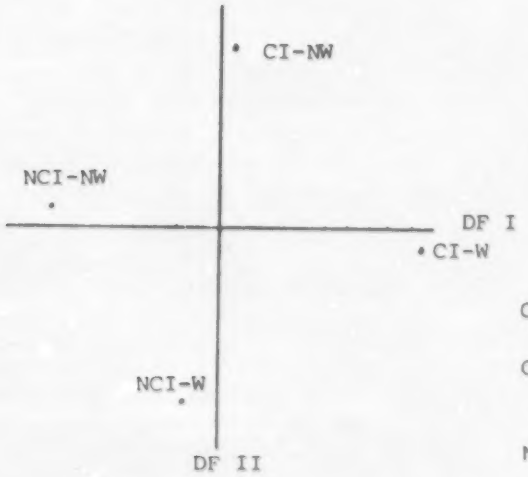
Table 12

Standardized Discriminant Function Coefficients
for Four Groups Defined by Career Involvement and Preference to Work
One Year After College Graduation

Variable	Discriminant Functions I	II
Cumulative grade point average	-0.26410	-0.07714
Have chosen an occupation	-0.71655	0.06295
Certainty of pursuing chosen occupation	-0.22513	0.54860
Importance attached to having a career	-0.49379	0.44878
Number of children	0.28985	-0.16012
Importance to mother that daughter pursue a career	-0.21131	-0.16738
Importance to father that daughter pursue a career	0.06239	-0.16285
Occupation has high prestige	-0.06786	0.37429
Occupation has prospects of high income	-0.41666	0.03800
Occupation provides stable, secure future	0.46515	0.03210
Occupation suits parents' ideas of success	0.08787	0.20860
Traditionality of occupation	-0.19863	0.39066
Mother is hard to talk to	0.06730	0.34069
Father given daughter advice	-0.03341	0.29009
Career salience - 1979	0.25639	-0.22527
Canonical Correlation	0.5345	0.4942

Graph 2

Centroids of Four Groups in Discriminate Plane



CI-W = Career Involved
Prefers to work
CI-NW = Career Involved
Prefers not to work
NCI-W = Not Career Involved
Prefers to work
NCI-NW = Not Career Involved
Prefers not to work

also have actively chosen their occupations. Those occupations tend to be traditional women's occupations and the women are less certain that the'll pursue the occupation.

Women who are noncareer involved but who prefer to work, may have actively chosen a career, which is likely to be nontraditional. They are fairly certain they'll pursue their chosen career and they attach importance to having a career.

Those women who have not consciously made a career choice are less likely to be career involved one year after college graduation. They attach less importance to having a career as a personal source of satisfaction and scored lower on career salience in 1979 when compared to career involved women.

Career salience and career involvement are not the same. Career salience refers to the priority a woman ascribes to having a career among other sources of personal satisfaction. It is predictive of career involvement, the practice of the chosen occupation or continued educational preparation for the chosen career.

The career involved woman seems to be a mixture of the traditional female and the "new woman". As a "new woman" or modern female she attaches importance to having a career and has made a conscious choice among occupations. Like her male counterpart she values occupational prestige and the secure, stable future the chosen occupation can provide. However, like the traditional woman, she prefers to work with people rather than alone or with things and she is less concerned with the income provided by the occupation.

While behavioral and attitudinal attributes of fathers did not enter the discriminant function, we can but wonder about the women's relationships with them. We get a little insight by looking at the role played by mother. Mothers tend to pursue traditional occupations and consider it important that their daughters pursue a career. Are they serving as role models for their daughters? Or, are we getting a glimpse of what has traditionally been called father identification when we find that career involved women perceive their mothers as being unfairly critical?

This mixture of traditional and modern values is a phenomenon that needs to be more closely researched. Does it portray these women as confused over modern versus traditional values as a result of growing up during the height of the recent women's movement? Or, is it indicative of the multifaceted life of the modern woman and a pattern which we will see more often as women increasingly enter the workforce and pursue their career goals?

Chapter 7

THE CAREER ASPIRATIONS OF FEMALE COLLEGE GRADUATES

The aspirations and ambitions of women have been studied by assessing women's goals in three areas: the highest degree planned/obtained, the occupation planned/entered, and the traditional versus nontraditional nature of the chosen occupation. Researchers are agreed that, compared to men, women's aspirations are low. It is estimated that by 1990 women will earn only one third of the first professional degrees and doctorates. Approximately one fifth as many women as men plan to enter a profession. These results have led to women being characterized as unambitious.

Based upon Brown's (1978) research on college effects and the benefits of single-sex education advocated by supporters of women's colleges, it is reasonable to hypothesize that there is a relationship between college type (coeducational, women's) and women's career aspirations. In addition, since the more selective the admission level, the higher the career salience scores of graduates, it is hypothesized that there is a re-

lationship between graduates' levels of career aspiration and the selectivity level of the college attended.

To test these hypotheses subjects were asked to respond to a direct question regarding their career aspirations:

> As you contemplate your career, what are your aspirations?
>
> 1. to own your own business
> 2. to hold a top management position in a large company
> 3. to hold a top management position in a small company
> 4. to hold a middle management position
> 5. to hold a staff position
> 6. to do free-lance work (art, writing, consulting, etc.)
> 7. to not hold a paying job
> 8. other:_____

This question was based upon an organizational model of aspiration, but seemed appropriate since most jobs can be defined in such a way that they fit the model.

DATA ANALYSIS AND RESULTS

Table 13 shows the percentage of subjects giving each response by college type and selectivity level. Almost all the women anticipate holding paying jobs (99.3 percent). However, the percentage of women aspiring to each step of the organizational ladder varies with the greatest differences between college types occuring at the level of middle management and staff positions. At the very selective level a greater

Table 13

Percentage of Women Aspiring to Each Career Level
by College Type and Selectivity

	Women's Colleges		Coeducational Colleges		
	VS	S	MS	VS	S
Have own business	16.3	12.5	11.2	17.4	10.1
Top management position in large company	15.5	13.9	12.8	10.1	12.3
Top management position in small company	10.7	12.5	17.8	13.0	10.6
Middle management position	16.7	25.0	20.7	23.9	24.7
Staff position	17.8	15.3	19.4	18.2	26.9
Free-lance work	14.1	11.1	9.1	6.9	8.8
No paying job	0.7	--	0.4	1.2	0.9
Other	8.1	9.7	8.8	9.3	5.7

percentage of women from coeducational colleges as opposed to women's colleges, aspire to middle management positions. At the selective level 26.9 percent of the graduates of coeducational colleges and 15.3 percent of the women's college graduates aspire to staff positions.

Observation of the data on women's college graduates' career aspirations indicate that there may be significant differences between selectivity levels. A larger percentage of selective college graduates aspire to middle management positions than do very selective college graduates. If we consider free-lance work as being similar to owning one's own business, we detect another difference between the selectivity levels with 30.4 percent of very selective college graduates preferring to assume responsibility for the initiation of job opportunities and the execution of contracts while only 23.6 percent of selective college graduates aspire to this type of work.

Among coeducational colleges it appears that the aspiration level of selective college graduates is lower than that of women who graduated from colleges at the other selectivity levels. Graduates of highly selective and very selective colleges tend to favor having their own business or working in the upper eschelons of management.

To test the significance of these differences between college types and among selectivity levels, analyses of variance were performed. A two-way analysis of variance was conducted on women's and coeducational colleges at the selective and the very selective admission levels, and a one-way analysis of variance was conduct-

ed on coeducational colleges. Results indicate that there are no significant differences in mean scores of career aspiration between college types (women's coeducation) or among selectivity levels. Also, there is no interaction between college type and selectivity level.

There being no relationship between career aspiration and either college type or selectivity of college attended, it seemed appropriate to test for a relationship between aspiration level and level of women's career salience. A one-way analysis of variance was performed among levels of career salience. Life Style scores of 0 to 6.99 were defined as low career salience, scores of 7.00 to 9.99 represented median career salience while scores of 10.00 and above equaled high career salience. No significant differences were found in career aspirations among levels of career salience. Highly career salient women do not aspire to positions that are significantly higher on the organizational ladder than noncareer salient women.

Traditional versus nontraditional career choices have been used as career aspiration criteria in several studies. It has been assumed that the choosing of a traditional male career by a woman indicates she has high aspirations since male careers tend to pay better and accord the individual greater prestige than does a traditional female career. Thus, it is possible that while career salient women may not aspire to higher positions on the organizational ladder than their noncareer salient sisters, they may prefer to climb a traditionally male career ladder rather than pursue a traditional-

ly female career. To test whether this phenomenon is occuring, a one-way analysis of variance was performed using level of career salience (high, median, low) as the independent variable. The dependent variable was level of role innovativeness defined by the masculinity, femininity, or neutrality of career choice. Results confirm that there are significant differences in role innovativeness among levels of career salience, $F_{(2, 1165)} = 9.045$, $p < .001$; the higher the career salience the more likely the woman is to choose a nontraditional career (traditional male career). Scheffe post hoc tests indicate significant differences, $p < .01$, exist when pairwise comparisons are made between levels of career salience; i.e., comparisons of high career salient women with median career salient women, median career salient women with low career salient women.

Another criterion which has been used to assess women's career aspirations is the highest anticipated educational level since that aspiration is often tied to career choice; more education is generally required for the traditional male professions. Thus, if highly career salient women are more likely to be role innovators, it is possible that they are also the women who are more likely to pursue their education within the first four post-baccalaureate years. To determine whether this supposition is correct, the percentages of women planning to continue their education in the next four years and those planning to terminate their education at the baccalaureate level were calculated for high, median and low career salient women. Plans to pursue graduate, professional or other training within the next four years were directly proportional to the sub-

jects' level of career salience (low, 60.8 percent; median, 70.3 percent; high, 82.2 percent). An inverse relationship was found between career salience and plans to end formal education at the baccalaureate level (low, 20.2 percent; median, 7.9 percent; high, 1.2 percent). This relationship was tested further using a one-way analysis of variance. Results support the hypothesis that the higher the career salience of women, the more likely they are to pursue graduate or professional education during the first four post-baccalaureate years, $F_{(2, 1165)} = 30.946$, $p < .001$. Post hoc tests, using Scheffe's S method indicate all pairwise comparisons are significant at the .01 level.

The results of the exploratory analyses using level of career salience as the independent variable led the researcher to reanalyze the data using innovativeness of career choice and pursuit of graduate or professional education as dependent variables in separate analyses of variance to determine whether there is a relationship between college types and among college selectivity levels and the variable "women's career aspirations." The two-way analysis of variance using role innovativeness as the dependent variable resulted in no differences between college type, but indicated that there are significant differences among selectivity levels, $F_{(1,913)} = 24.919$, $p < .001$.

A one-way analysis of variance among selectivity levels of the coeducational colleges indicates a significant relationship between role innovation and selectivity level of the college, $F_{(2,739)} = 14.175$, $p < .001$. The higher the selectivity level of the college, the greater the role innovativeness of its women graduates.

Pairwise comparisons were made using Scheffe's S method to pinpoint the differences among selectivity levels on the variable of role innovativeness. Results indicate that graduates of selective coeducational colleges are significantly, $p < .01$, less role innovative than graduates of either very selective or highly selective coeducational colleges.

Similar two-way and one-way analyses of variance using pursuit of graduate or professional education as the dependent variable resulted in no differences between college type or among selectivity levels of colleges.

DISCUSSION

Women's career aspirations (defined by a organizational model) have no relationship to college type or selectivity of the college attended. Nor are women's career aspirations related to their career salience. However, when masculinity of career and plans to continue education are considered in relationship to career salience, we find that the higher the career salience the more likely the woman is to choose a traditional male occupation and to plan for graduate, professional, or other training within the first four post-baccalaureate years. Innovativeness of career was also found to be related to selectivity of the college attended. Thus, we seem to have two career tracks for women--the nontraditional track most often pursued by the more career salient women, who are graduates of the more selective colleges, and the traditional track claiming more of the non-career salient women. While the final destination of the travelers is similar (level

of career aspiration) the tracks follow different routes with the more career salient taking a longer route which includes more post-baccalaureate education.

Chapter 8

SUMMING-UP

SUMMARY OF THE STUDY

This study is the third phase of a longitudinal research project. In Phase I the author focused on the relationship between career salience and college type (women's, coeducational) and college selectivity at the time of college entrance. A follow-up study, Phase II, occurred at the time of the subjects' graduation. Its prime concern was whether change had occurred during the four years of college on the variable of career salience. The current study, Phase III, was designed for two purposes: (1) to further our knowledge of women's career salience in relation to the variables of college type and selectivity and (2) to expand the scope of the study to women's career development.

To meet these goals, four major questions were addressed:

1. Is there a relationship between career salience and type of college attended

(women's, coeducational) one year after graduation?

2. Which educational background, career plans, familial influence, and parental background variables can be used to predict career salience?

3. Which variables (educational background, career plans, familial influences, parental background, and 1979 career salience) can be used to predict career involvement one year after college graduation?

4. Is there a relationship between level of career aspiration and the type of college attended (women's, coeducational)?

Subjects for the study were the 1979 women graduates of fifteen small, private, liberal arts colleges located in the north-eastern United States. Although some of the colleges maintain their historical denominational affiliations, only those which operate as non-denominational institutions were included in the study. All of the colleges had a yearly comprehensive fee greater than $3,500.00 when the study began in 1975, and offered a similar type of program. Colleges were chosen to differ systematically on two variables: college type (women's, coeducational) and selectivity level. An attempt was made to have three colleges of each type for each of three levels of admission competitiveness. The researcher was successful in meeting this objective with the coeducational colleges.

The survey instrument used in the study contain-

ed questions related to educational background, career plans, familial influences, parental background and general reactions. Embedded in the questionnaire were the items comprising the Life Style Index, a measure of career salience. This index was developed by Shirley Angrist (1971-1972) for her research with women college students.

One year after college graduation the subjects were requested to respond to the researcher's questionnaire on a voluntary basis. This questionnaire was mailed directly to the 2,224 subjects, with a return envelope, two weeks after an initial letter telling them of the study and requesting their participation. Nonrespondents received a maximum of three reminders to return the questionnaire. These reminders were sent at two to three week intervals.

To respond to question 1, analyses of variance were employed. A two-way analysis of variance was conducted on the women's and coeducational colleges at the selective and very selective admission levels. The finding that subjects graduated from women's colleges at the very selective level maintained their lead in career salience over their counterparts at coeducational colleges is important. However, it is also important to note that this same group had a greater decline in career salience during the first post-baccalaureate year than any other group. No significant differences were found between selectivity levels nor was there an interaction between college type and selectivity.

A one-way analysis of variance was performed on the coeducational colleges to test for differences in career salience among selectivity levels.

Graduates of highly selective colleges were found to be more career salient than those from the other two groups.

Regression analyses were used to identify predictors of career salience from among 34 attitudinal and behavioral variables, question 2. Separate analyses were carried out on the two variable types, followed by an analysis on all 34 variables. It was found that seven variables were consistent in entering the regression equations. These variables indicate that the career salient woman generally has a mother who is employed and she does not perceive that her mother criticizes her unfairly. The career salient woman considers having a career important to her personal satisfaction and reports that she feels certain that she'll pursue her chosen occupation. In order to achieve her occupational goal, the career salient woman tends to continue her education during the first post-baccalaureate year. She supports equality for the sexes both in the workplace and the home.

Factors predictive of career involvement one year after college graduation were determined through discriminant analysis, question 3. Two analyses were carried out. First the discriminant function differentiating between career involved and non-career involved women was found. Career involved women were defined as those women who reported being employed in their chosen career or are continuing their education to prepare for their chosen career. Women not meeting these criteria were classified as non-career involved. In the second analysis a second dependent variable, commitment, was used to differentiate among career involved women who prefer to work, career involved women who prefer not to work, non-career

involved women who prefer to work, and non-career involved women who prefer to remain non-career involved. Results of these analyses indicate that the single most important factor predictive of career involvement one year after college graduation is whether the woman has consciously (actively) chosen an occupation rather than followed the course of least resistence. This was true for both analyses, but in the second analysis the woman's career salience score in 1979 also was important in discriminating between the disparate groups (career involved women who prefer to work and non-career involved women who prefer not to work). In the four-group discrimination, the second discriminant function was significant and differenciated between the career involved women who preferred not to work and the non-career involved women who preferred to work. Important variables in the function are certainty of pursuing one's chosen career and innovativeness of career.

Question 4 was designed to assess differences between college types using "occupational level aspired to" as the dependent variable. Analyses of variance resulted in no significant differences between college types or among selectivity levels. Exploratory analyses indicated that "occupational level aspired to" also was unrelated to career salience.

Further analyses were carried out using innovativeness of career and pursuit of graduate education as indicators of career aspiration. Both factors were found to be related to career salience; the more career salient the women, the more likely she is to have chosen a male dominated career and to be pursuing graduate or pro-

fessional education. Innovativeness of career was found to be related to selectivity of college attended; graduates of selective coeducation colleges were significantly less role innovative than graduates of the other coeducational colleges. No differences in innovativeness of career were found between college types. Nor was pursuit of post-baccalaureate education related to college type or selectivity level of college attended.

Women's career aspirations is a difficult concept to operationally define. More research needs to be carried out to give us a better understanding of women's aspirations. At this time we know that there are no differences in the occupation level aspired to by high career salient and low career salient women. However, the high career salient women tend to pursue a male career track while low career salient women tend to pursue traditional female careers.

RELATION OF FINDINGS TO PREVIOUS RESEARCH

Impact of College Type on Women's Career Achievement

Career salience (the priority ascribed to pursuing a career) is a prerequisite to both career aspiration (level of attainment serving as a goal) and career involvement (the pursuit of a career).

My earlier research (1977) indicates that at the very selective level of admission competitiveness women enrolling in women's colleges are more career salient than their counterparts in coeducational colleges. Does this account for Astin's

finding that "women's colleges increase the chances that women will obtain positions of leadership, complete the baccalaureate degree and aspire to higher degrees" (Astin, p. 245)? If Astin is correct, we might anticipate finding greater differences in career salience between college types. In reality the groups are more similar now than at either of the two previous assessments of career salience.

However, other researchers (Brown, 1978; Oates and Williamson, 1978) have noted that there are differential effects depending not only upon college type but selectivity of the college. Their results indicate that the positive effects of women's colleges accrue to women graduated from the highly selective institutions which are not represented in the current sample. Perhaps their absence from this study explains the minor differences found between college types. In effect, this study may have verified the work of Brown (1978), who found the effects on career plans and self esteem are positive for highly selective women's colleges, and Oates and Williamson (1978), who reported that most of the women's college achievers are graduates of the Seven Sisters; i.e., the highly selective women's colleges.

Factors Predicting Career Salience

When Angrist (1971-72) developed the Life Style Index she built the instrument upon the assumption that women committed to a career are strongly motivated to prepare for and work in their chosen occupation. She further theorized that the desire to work must be strong enough for the woman to view herself as a career woman and to develop a life style that permits her to work.

To tap these factors, the instrument contains seven questions related to the interacting variables of marriage, children and family income. Other questions deal with: (1) the pursuit of post-baccalaureate education, (2) desire to work full or part time versus concentrating on home/family or involvement in clubs, hobbies, volunteer work, etc., (3) goal fifteen years hence (married versus unmarried, children versus no children, career versus no career) and (4) importance attached to the chosen occupation providing freedom from close supervision.

This research has validated the question related to pursuit of post-baccalaureate education; high career salient women are more likely than low career salient women to continue their education after receiving a bachelor's degree.

In this research we have also seen that career salience in 1979 is a variable predictive of career involvement in 1980. This is to be expected if Masih is correct in asserting that career salience is determined by (1) career motivation, (2) importance of a career as a source of personal satisfaction, and (3) ascription of priority to pursuit of a career among other sources of satisfaction.

Predicting Career Involvement

In Angrist's (1971-72) assumption that women committed to a career are strongly motivated to prepare for and work in their chosen occupation "chosen" needs to be emphasized. Having chosen a career was the prime determinant of career involvement one year after college graduation. This means that women actively and consciously

made a choice among occupations. They did not just flow with the group or take the first job offered to them irrespective of the area.

Characteristics of the chosen occupations are also predictive of career involvement. Women are beginning to value occupational characteristics that formerly were considered only by men. With the greater numbers of women entering the labor market and shouldering the responsibilities of supporting themselves and others they are beginning to think about the security and stability offered by the chosen occupation as well as the prestige it affords them. Recent work by Astin (1980) indicates that high salaries are becoming more important to women. This is not reflected in this study and may be related to the fact that these women are experiencing some conflict between the traditional female role and the feminist expectations of the modern woman.

Career Aspirations of Women

A major goal of this study was to determine whether college type was related to women's career aspiration. In attempting to meet this goal the traditional organizational structure was presented and women were asked to indicate their aspiration level. No differences were found between college types or among selectivity levels. Additional analyses to determine whether there is a relationship between "occupational level aspired to" and career salience also resulted in no differences.

A review of the literature revealed that other researchers have employed a variety of variables

to measure career aspiration. Astin (1977) found that women's colleges have a positive effect on women's career aspirations. Brown (1978) verified this finding and emphasized that positive effects were most significant at highly selective colleges. These researchers used pursuit of graduate education as their criterion of aspiration. Using pursuit of graduate education as the dependent variable in analyses of variance to compare college types and selectivity levels did not validate the previous researchers' findings. No relationship was found between pursuit of graduate education and college type or selectivity. However, pursuit of graduate or professional education was directly related to level of career salience.

Another researcher (Tangri, 1971, 1972) used role innovativeness (pursuit of a male-dominated occupation) as a determinant of career aspiration. In the current research this variable was related to level of career salience and college selectivity, but unrelated to college type.

A third indicator of career aspiration is proposed -- highest degree anticipated. Data was not available to test the relationship of this variable to college type, selectivity and level of career salience.

As we learn more about women's career development and involvement we may develop a greater appreciation of the complexity of women's lives and the factors which motivate them. Only then can we develop an appropriate measure of women's aspirations.

IMPLICATIONS

- Knowledge of the interrelationships of career salience, career involvement, and career aspirations has implications for counseling young women and for college program planning.

For Counseling Students

Career development and career education have mainly become of concern within the past few decades. Super's (1957, 1963) work has been foremost in this field. His major tenet is that in choosing a career and implementing it, the individual is putting into operation his concept of himself. Six distinct, sequential stages to an individual's work life have been defined by Super. (1) Exploration, which takes place during adolescence when a self-concept is being developed. (2) Reality testing occurs as the individual moves from school into work. (3) The trial process takes place when the individual tries several jobs sequentially while searching for the career that best fits his self-concept. (4) When the self-concept is implemented in a congruent job the person is in the period of establishment. (5) After a career is established it needs to be preserved and the maintenance period is reached. (6) The years of decline in the work world lead up to and include retirement when the individual must adjust to a new self that does not include employment.

Super's work laid the foundation for career development theory. More recently Sheehy (1977) popularized the concept that there are predictable crises of adult life when Passages was published. However, we still do not have a model

of women's career development eminating from a longitudinal study of women. There is increasing interest in this subject and eventually it will be developed.

Meanwhile, there is a great need for non-sexist guidance and counseling. Although this study can not create the needed career development model, it does provide some insights that may be beneficial in the counseling of young women.

The degree of commitment a woman has to a career and the innovativeness of her career choice should be taken into account when a woman considers prospective colleges. It appears that the higher the selectivity of the college, the more role innovative and more career salient are its female graduates. Counselors need to be aware of this in order to steer young women planning to enter traditional male careers toward institutions which are more likely to support and encourage their career choice. They also need to be aware that many career salient women choose women's colleges because of the opportunities they afford women to develop their potential in an environment free of male pressures and replete with female role models.

Career counselors should be aware of the fact that the active (that is, conscious) choosing of an occupation is the single most important factor leading to career involvement of women one year after college graduation. Women whose career choice is determined by the road of least resistance or an act of fate are less likely to be career involved in the first post-baccalaureate year and less prone to career commitment than women who have actively made an occupational choice. Thus, the work of counselors in

helping women make these choices about their future is vital.

For College Program Planning

Both women's colleges and coeducational colleges should consider the results of this study when evaluating the responsiveness of their institutions to women's needs. Women's colleges need to reexamine their programs. Are they really enhancing women's career salience or is it only an illusion? They need to focus more on the interests and aptitudes of their students as well as the needs of society. They need to investigate the possibility of offering programs that utilize their traditionally strong academic background, but add a practical and saleable dimension to the education of their graduates. Hood College has demonstrated that this works. More recently Wilson College has used this tactic to revitalize itself after its near demise.

Coeducational colleges, as compared to women's colleges, have always had a wider range of program offerings in order to respond to the interests of their male students. Now that women are increasingly entering male dominated occupations they are more likely to enter traditionally male programs of study. Are these programs open to women both psychologically and academically? Or, are there invisible barriers to human competence? These questions need to be faced honestly and an awareness of both women's and men's needs developed among faculty and students.

When evaluating programs at all institutions the need for counseling should be scrutinized. Women are graduating from college and being buffet-

ed by the two-fold pressure of society to establish themselves in a career and to simultaneously establish a heterosexual relationship leading to marriage and children. While many women have consciously chosen to accomplish the first objective before pursuing the latter, or to curtail part or all of the second objective, they are looking for ways to combine the two goals. In addition, they see their needs for counseling in the two areas separately as not meeting their needs.

In meeting women's needs for counseling perhaps we need to train more women to counsel women. We might also consider whether mentoring and networking among women can be fostered on campuses. Because women have not traditionally had the support of a network growing out of a mentoring relationship they feel stranded when they enter the labor force. How can the necessary support systems be developed?

NEEDED RESEARCH

Results of this study raise several questions for further research. These questions will be discussed under major topics.

A Model of Women's Career Development

In recent years the surge of women into the workforce has piqued our interest in women's career development. Oneill, Meeker and Borgus (1977) have attempted to diagram the factors which they hypothesize may affect the socialization, sex role learning, and the career choice processes in college women, Figure 1 (Chapter 2).

While the placement of several factors in the diagram might be questioned, it is generally agreed that socialization and sex role learning processes lead to the woman's self concept. That self concept may embody, or lead to the development of, a vocational sex role and career orientation (salience). These culminate in the woman's choosing a career, the key act which predicts career involvement. Therefore, career choice should be followed by career involvement on the diagram.

It is at this point that our knowledge of women's career development becomes conjecture. The recent movement of women into employment and their longterm participation in the labor market in spite of marriage and children suggests that these traditional obstructions to women's career involvement may be less potent obstacles than in the past. If this is true, we need to question whether women's career development is becoming similar to that of men's career development. Or, alternatively, are women's traditional roles and responsibilities still so powerful an influence on their career development that a new model of career development must be tendered for females? In order to respond to these questions, we need to conduct a longitudinal study of women which extends throughout their adult years.

Instrument for Assessing Career Salience

The items on the Life Style Index are designed to assess the importance of a career to a woman among other sources of satisfaction in her life. Of particular importance is the priority she ascribes to a career by her willingness, or ef-

fort, to arrange her life around husband and children, irrespective of family income, in order to pursue a career. In fact, seven of the items on the instrument relate to husband and children. In view of women's changing role in our society, (more extensive employment, marriage at a later age, fewer or no children, etc.) the instrument may lack validity.

Development of a more timely instrument needs to be accomplished. Deletion of some of the husband and child related questions and the addition of questions found predictive of career salience in Chapter 5 might produce a more valid instrument.

This study validated the question regarding pursuit of graduate or professional education. Other questions need to be validated. Only careful research of a large sample over time can achieve this goal.

Fluctuations in Career Salience

Over the course of the five years these subjects have been studied, it has become evident that career salience is not a stable personality variable. Thus, we must question why scores increase from college enrollment to graduation and then decline. Are these variations an artifact of the Life Style Index used to measure career salience? If so, we may need to modify the instrument or develop a better one. Other reasons for investigating the validity of the instrument are presented in the preceding section.

Fluctuations in career salience exhibited by the

subjects in this study may result from the conflicting expectations of society that women both commence a career and develop intimacy during the first few years after college graduation. When Klemmack and Edwards (1973) studied women's career aspirations they found that family background variables (father's occupational status, mother's work, and size of family of orientation) were mediated by more current issues related to the development of intimacy and generativity. This appears to be true of the subjects in the current study, also. Women reported experiencing conflict between pursuit of a career, marriage, and children. When examining the responses of married women regarding factors influencing their careers during the first post-baccalaureate year this was strikingly evident. Married women reported that their careers were relegated to second place and they found themselves supporting husbands in graduate or professional school, following husbands to geographical areas where pursuit of their careers was difficult, and a myriad of other factors that inhibited involvement in their chosen careers.

More research focused on factors affecting women's full labor market participation is needed. Only by identifying these factors and their relationship to career salience can we determine whether or not they are responsible for the observed fluctuations in the variables at different points in time.

Impact of College Type on Career Salience

In Chapter 4 it was noted that differences in career salience between subgroups of the sample

were smaller one year after college graduation than they were either at college entrance or graduation. Does this indicate that effects of college type are disappearing? Is the career salience of women's college graduates waning after four years of stimulation? What are the effects of being educated at a women's college? Are some of the effects that impinge on career salience long term rather than short term?

Measuring Women's Career Aspirations

This research unsuccessfully attempted to measure women's career aspirations using occupational level to which women aspire. The variable was related neither to college type, selectivity of college, nor career salience.

Alternative variables that might be indicators of career aspiration level were explored. Innovativeness of career (pursuing a traditionally male career), continuation of graduate or professional school and highest degree expected are possible indices of career aspiration. These, and other, possible indices should be studied further. We need a reliable and valid measure for this complex variable.

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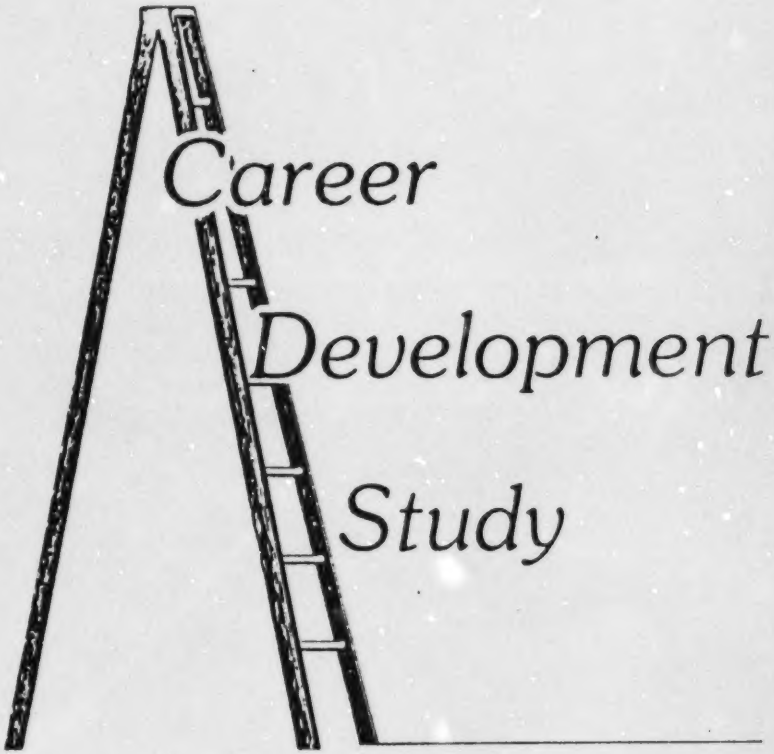
APPENDIX



Career Development Study

A Research Project Sponsored by U.S. Office of Education
Women's Educational Equity Act

Part I – EDUCATIONAL BACKGROUND

1. Did you attend the college from which you graduated for all of your undergraduate education? (Circle one) If you spent your junior year abroad under the auspices of this college, circle "yes".

   1 yes – GO TO QUESTION 3
   2 no, I transferred to this college

2. If you circled 2 as your response to question 1, when did you transfer to this college? (Circle one)

   1 in my freshman year
   2 in my sophomore year
   3 in my junior year
   4 in my senior year

3. On a four-point scale, what was your cumulative grade point average at graduation? (Circle one)

   1 3.5 – 4.0
   2 3.0 – 3.49
   3 2.5 – 2.99
   4 2.0 – 2.49
   5 1.5 – 1.99
   6 1.0 – 1.49

4. Have you attended any graduate school, professional school or special programs since leaving college? (Circle one)

   1 yes
   2 no – GO TO QUESTION 6

   IF YES: Please list each school you attended, the dates attended, your major field of study and the degrees earned:

School	Location	Dates Attended From	Dates Attended To	Major Field	Degree Earned

5. How did you finance this post-baccalaureate education? Please indicate the approximate percent of financial aid received from each of the following sources.

   1 personal savings _____ %
   2 full-time or part-time employment _____ %
   3 parental or family aid (including spouse) _____ %
   4 repayable loan _____ %
   5 scholarship, grant, gift _____ %
   6 employer _____ %
   7 other. Please explain _____ _____ %

   Total 100 %

6. As far as you can tell now, do you plan to continue your education? (Circle one)

   1 yes, graduate school within the next four years
   2 yes, graduate school at some future time (more than four years hence)
   3 yes, professional school within the next four years
   4 yes, professional school at some future time (more than four years hence)
   5 yes, other training within the next four years
   6 yes, other training at some future time (more than four years hence)
   7 no, I do not plan to continue

7. When you entered college, what was your expected major field of study? If you planned a double major, please list both. (Please enter the number of the major(s) as given on page 12)

_____

8. Now that you have graduated, what was your major field of study? If you had a double major, please list both. (Please enter the number of the major(s) as given on page 12)

_____

Part II – YOUR CAREER PLANS

9. As things look now, do you feel you have chosen a specific occupation or field of work? (Circle one)

   1 yes, GO TO QUESTION 10
   2 no, GO TO QUESTION 15

10. If you have chosen an occupation, what is it? (Please enter the number of the occupation as given on page 13)

_____

11. When did you make this career choice? (Circle one)

   1 grades K–6
   2 grades 6–12
   3 college
   4 post college

12. What events, activities, or other influences contributed to your making this career choice? (Circle all that apply)

   01 father as a role model
   02 mother as a role model
   03 other family member as a role model
   04 male teacher or professor as a role model
   05 female teacher or professor as a role model
   06 stimulation of a specific class
   07 only job I could get when I graduated
   08 didn't have money for graduate or professional school
   09 didn't get admitted to graduate or professional school of my choice
   10 I have always enjoyed this type of work
   11 this job is available near my parent's home
   12 this job is available near my husband's and my home
   13 other (explain briefly) _____

_____

_____

_____

13. How certain are you that you will pursue your chosen occupation? (Circle one)

   1 very certain
   2 fairly certain
   3 uncertain

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14 What one person most influenced your choice of occupation? (Circle one)

01	father	08	college teacher
02	mother	09	counselor
03	sister	10	close friend (female)
04	brother	11	close friend (male)
05	husband	12	person in the occupation
06	other relative	13	other: Who?
07	high school teacher		

PLEASE GO TO QUESTION NO. 17

15 If you have not yet chosen an occupation, what one occupation or field of work would you choose if you had to decide right now? (Please enter the number of the occupation as given on page 13)

---

16 What one person will most likely influence your choice of occupation? (Circle one)

01	father	08	college teacher
02	mother	09	counselor
03	sister	10	close friend (female)
04	brother	11	close friend (male)
05	husband	12	person in the occupation
06	other relative	13	other: Who?
07	high school teacher		

17 How important do you think the following features of an occupation have been or will be in influencing your choice of a field of work? (Circle 1, 2, 3, or 4 to indicate the degree of importance each work feature has for you.)

		Very Unimportant	Somewhat Unimportant	Somewhat Important	Very Important
A	Occupation has high prestige	1	2	3	4
B	Involves work with people rather than alone or with "Things"	1	2	3	4
C	Provides freedom from close supervision	1	2	3	4
D	Has prospects of high income	1	2	3	4
E	Allows use of special abilities and interests	1	2	3	4
F	Provides stable, secure future	1	2	3	4
G	Suits parents' ideas of success	1	2	3	4
H	Involves helping	1	2	3	4

18. In terms of your own personal satisfaction, how much importance do you attach to having a career? (Circle one)

1	a great deal	3	only a little
2	a moderate amount	4	none at all

19. As you contemplate your career, what are your aspirations? (Circle one)

1. to own your own business
2. to hold a top management position in a large company
3. to hold a top management position in a small company
4. to hold a middle management position
5. to hold a staff position
6. to do free-lance work (art, writing, consulting, etc.)
7. to not hold a paying job
8. other: (please explain) _____

_____

20. Are you now working in paid employment? (Circle one)

1. no and have no plan to seek work
2. no but plan to work within 2 years
3. no but plan to work within 5 years
4. yes but plan to stop working within 2 years
5. yes and plan to continue working indefinitely

IF YOU ARE NOT WORKING NOW, PLEASE GO TO QUESTION 26

21. If you are now working, in what occupation are you employed? (Please enter the number of the occupation as given on page 13)

_____

22. Approximately how many hours a week do you work at your job?

_____

23. If you are now working: do you consider your present job to be in a field in which you prefer to work?

1. yes, **GO TO QUESTION 25**
2. no

24. If No: In what field do you prefer to work? (Please enter the number of the occupation as given on page 13)

_____

25. How easy or difficult was it for you to find your present job? (Circle one)

1	very easy	3	fairly difficult
2	fairly easy	4	very difficult

26. Looking forward into the future, have you any plans in terms of work? (Circle one)

1. no, I will continue what I am now doing
2. yes, I will change jobs
3. yes, I will seek a promotion
4. yes, I will change fields
5. yes, I will look for a job 4

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Part III – FAMILIAL INFLUENCES ON WOMEN'S CAREERS

27 What is your marital status? (Circle one)

1 married
2 single
3 separated
4 divorced
5 widowed

} GO TO QUESTION 33

28 If married: How many years have you been married? _____

29 What is your husband's occupation? (Please enter the number of the occupation as given on page 13)

_____

30 How much education does your husband have? (Circle one)

1 graduate or professional training after college
2 college or university graduation
3 some college
4 high school graduation
5 some high school or less

31 What is your husband's attitude toward your career choice? (Circle one)

1 enthusiastic
2 supportive
3 noncommital or neutral
4 patronizing or paternalistic
5 he is opposed to it

32 How important is it to your husband that you pursue a career? (Circle one)

0 not applicable
1 very important
2 somewhat important
3 somewhat unimportant
4 very unimportant

33 Do you have any children? (Circle one)

1 none – GO TO QUESTION 35
2 one
3 two
4 three
5 four or more

34 If you have children below the age of 13: Do you have help with child care from any of the following sources? (Circle all that apply)

1 paid babysitter in your home
2 paid babysitter out of your home
3 day care center or nursery school
4 relative, neighbor or friend in your home (unpaid)
5 relative, neighbor or friend in their home (unpaid)
6 live in housekeeper
7 other help: Please explain _____

_____

35 If you have no children now, do you plan to have children in the next five years? (Circle one)

1 yes
2 no
3 don't know

5

36. Below are some conditions under which women work. Circle 1, 2, 3, 4, or 5 according to whether you would want to work under each condition. (Be sure to rate yourself on all 7 conditions)

		Definitely Not	Probably Not	Undecided	Probably Would	Definitely Would
A.	No children; husband's salary adequate	1	2	3	4	5
B.	One child of preschool age; husband's salary adequate	1	2	3	4	5
C.	One child of preschool age; husband's salary not adequate	1	2	3	4	5
D.	Two or more children of preschool age; husband's salary not adequate	1	2	3	4	5
E.	Two or more children of school age; husband's salary adequate	1	2	3	4	5
F.	Two or more children of school age; husband's salary not adequate	1	2	3	4	5
G.	Children have grown up and left home; husband's salary adequate	1	2	3	4	5

37. Assume that you are trained for the occupation of your choice, that you will marry and have children, and that your husband will earn enough so that you will never have to work unless you want to. Under these conditions, which of the following would you prefer? (Circle all that apply)

1 to participate in clubs or volunteer work
2 to spend time on hobbies, sports, or other activities
3 to work part time in your chosen occupation
4 to work full time in your chosen occupation
5 to concentrate on home and family

38. People differ on what they think married women and men should do in their daily lives. For each of the following statements, circle 1, 2, 3, 4, or 5 to show how strongly you agree or disagree with each:

		Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
A.	Raising children is more a mother's job than a father's	1	2	3	4	5
B.	Except in special cases, the wife should do the cooking and house cleaning and the husband should provide the family with money	1	2	3	4	5

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C.	If the man is working to support the family, his wife has no right to expect him to work when he's home	1	2	3	4	5
D	A man who helps around the kitchen is doing more than should be expected	1	2	3	4	5
E	A man ought to feel free to relax when he gets home from work	1	2	3	4	5

39 How strongly do you feel about women's demands for equality? (Circle one)

1 strongly favor
2 favor
3 undecided
4 against
5 strongly against

40 Do you belong to any feminist groups, women's liberation groups or consciousness-raising groups? (Circle one)

1 yes, GO TO QUESTION 41
2 no, GO TO QUESTION 42

41 If yes, how active are you in these groups? (Circle one)

1 not very active
2 moderately active
3 extremely active

42 Ten years from now, would you like to be – (Circle one)

1 a homemaker with no children
2 a homemaker with one or more children
3 an unmarried career woman with no children
4 an unmarried career woman with one or more children
5 a married career woman with no children
6 a married career woman with one or more children
7 undecided
8 other: What? _____

43 For a few moments assume that you can do with your life whatever you please to do. In this fantasy you have no financial problems and any personal or family responsibilities have been handled in some way in order that you can use your time as you please. In which one of the following activities would you choose to spend most of your time? Please circle one answer indicating your greatest preference.

1 to participate in clubs or volunteer work
2 to spend time on hobbies, sports, or other activities
3 to work part-time in your chosen occupation
4 to work full-time in your chosen occupation
5 to concentrate on home and family
6 other (Explain briefly) _____

_____

_____

44. Now let's return to reality. Under which of the following conditions are you most likely to work? (Circle all that apply)

1 single, whether due to choice, separation, divorce, or death
2 married, husband's salary inadequate
3 married, husband's salary adequate
4 children of pre school age
5 children in school full day
6 children have reached adulthood
7 need for self fulfillment
8 need to occupy time
9 other: (Explain briefly) _____

_____

45. Under which of the following conditions are you least likely to work? (Circle all that apply)

1 single, whether due to choice, separation, divorce, or death
2 married, husband's salary inadequate
3 married, husband's salary adequate
4 children of pre school age
5 children in school full day
6 children have reached adulthood
7 need for self fulfillment
8 need to occupy time
9 other: (Explain briefly) _____

_____

Part IV – PARENTAL BACKGROUND

46. Does your mother now hold a paying job? (Include her own business or a family business.) (Circle one)

1 yes, she works full time
2 yes, she works part time
3 no, she does not work now, GO TO QUESTION 48

47. If yes, what is your mother's occupation? (Write the number of the occupation as given on page 13)

Mother's former occupation: _____

48. If your mother worked part time or full time until her retirement, death, or disability, what was her occupation? (Write the number of the occupation as given on page 13)

Mother's occupation: _____

49. What is the highest level of formal education reached by your mother? (Circle one)

1 8th grade or less
2 some high school
3 completed high school
4 some college, business school or nursing school
5 graduated from college, business school or nursing school
6 attended graduate or professional school
7 attained advanced degree

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50 What type of post secondary educational institution did your mother attend? (Circle one)

1 women's college
2 coeducational college
3 business or technical school
4 nursing school
5 not applicable, she attended none of these institutions

51 How important was it to your mother that you graduated from college? (Circle one)

0 not applicable
1 very important
2 somewhat important
3 somewhat unimportant
4 very unimportant

52 How important is it to your mother that you pursue a career? (Circle one)

0 not applicable
1 very important
2 somewhat important
3 somewhat unimportant
4 very unimportant

53 Below are some descriptive phrases. Rate your mother on each description. (Circle 1, 2, 3, 4, or 5 according to how well each description fits your mother.)

		Almost Always	Frequently	Sometimes	Seldom	Almost Never
A	Gives me advice	1	2	3	4	5
B	Dismisses my problems as unimportant	1	2	3	4	5
C	Offers sympathy and affection	1	2	3	4	5
D	Hard to talk to	1	2	3	4	5
E	Helps me with my problems	1	2	3	4	5
F	Often criticizes me unfairly	1	2	3	4	5
G	Is a good listener	1	2	3	4	5
H	Has little free time	1	2	3	4	5

54 Does your father now hold a paying job? (Include his own business or a family business.) (Circle one)

1 yes, he works full time
2 yes, he works part time
3 no, he does not work now (he is retired, disabled, deceased)

55 If yes, what is your father's occupation? (Write the number of the occupation as given on page 13)

Father's occupation _____

56 If your father worked part time or full time until his retirement, death, or disability, what was his occupation? (Write the number of the occupation as given on page 13)

Father's former occupation _____

9

57. What is the highest level of formal education reached by your father? (Circle one)

1. 8th grade or less
2. some high school
3. completed high school
4. some college, business school or nursing school
5. graduated from college, business school or nursing school
6. attended graduate or professional school
7. attained advanced degree

58. What type of post-secondary educational institution did your father attend? (Circle one)

1. men's college
2. coeducational college
3. business or technical school
4. nursing school
5. not applicable, he attended none of these institutions

59. Below are some descriptive phrases. Rate your father on each description. (Circle 1, 2, 3, 4, or 5 according to how well each description fits your father.)

		Almost Always	Frequently	Sometimes	Seldom	Almost Never
A.	Gives me advice	1	2	3	4	5
B.	Discusses my problems as unimportant	1	2	3	4	5
C.	Offers sympathy and affection	1	2	3	4	5
D.	Hard to talk to	1	2	3	4	5
E.	Helps me with my problems	1	2	3	4	5
F.	Often criticizes me unfairly	1	2	3	4	5
G.	Is a good listener	1	2	3	4	5
H.	Has little free time	1	2	3	4	5

60. How important was it to your father that you graduated from college? (Circle one)

0. not applicable
1. very important
2. somewhat important
3. somewhat unimportant
4. very unimportant

61. How important is it to your father that you pursue a career? (Circle one)

0. not applicable
1. very important
2. somewhat important
3. somewhat unimportant
4. very unimportant

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Part V – REACTION

62. As you reflect on this year since you received your Bachelor's Degree, what event(s) had the greatest impact (positive or negative) on your career plans? Please explain.

63. This survey is part of a continuing series of studies I plan to carry out in order to learn how women's careers develop and the factors which influence their career development. I would be interested in your opinion on this topic and the kinds of research needed.

64. I would appreciate any comments you want to add about this questionnaire, the Career Development Study or about yourself.

THANK YOU FOR YOUR HELP!

MAJORS

ARTS AND HUMANITIES

01 Art, fine and applied
02 English (Language and Literature)
03 History
04 Journalism
05 Language and Literature (except English)
06 Music
07 Philosophy
08 Speech and Drama
09 Theology or Religion
10 Other Arts and Humanities

BIOLOGICAL SCIENCE

11 Biology
12 Biochemistry or Biophysics
13 Botany
14 Marine (Life) Science
15 Microbiology or Bacteriology
16 Zoology
17 Other Biological Science

BUSINESS

21 Accounting
22 Business Administration (general)
23 Finance
24 Marketing
25 Management
26 Secretarial Studies
27 Other Business

EDUCATION

31 Business Education
32 Elementary Education
33 Music or Art Education
34 Physical Education or Recreation
35 Secondary Education
36 Special Education
37 Other Education

ENGINEERING

41 Aeronautical or Astronautical Engineering
42 Civil Engineering
43 Chemical Engineering
44 Electrical or Electronic Engineering
45 Industrial Engineering
46 Mechanical Engineering
47 Other Engineering

PHYSICAL SCIENCE–MATHEMATICS

51 Astronomy
52 Atmospheric Science (including Meteorology)
53 Chemistry
54 Earth Science
55 Marine Science (including Oceanography)
56 Mathematics
57 Physics
58 Statistics
59 Other Physical Science

PROFESSIONAL

61 Architecture or Urban Planning
62 Home Economics
63 Health Technology (medical, dental, laboratory)
64 Library or Archival Science
65 Nursing
66 Pharmacy
67 Therapy (occupational, physical, speech)
68 Other Professional

SOCIAL SCIENCE

71 Anthropology
72 Economics
73 Geography
74 Political Science (government, international relations)
75 Psychology
76 Social Work
77 Sociology
78 Other Social Science

TECHNICAL

81 Building Trades
82 Data Processing or Computer Programming
83 Drafting or Design
84 Electronics
85 Other Technical

OTHER FIELDS

91 Agriculture
92 Communications (Radio, T.V., etc.)
93 Computer Science
94 Forestry
95 Law Enforcement
96 Military Science
97 Other Fiel

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OCCUPATIONS

01 Accountant or auditor
02 Architecture or urban planner
03 Artist (painting, sculpture, etc.)
04 Business: banker or financier
05 Business: buyer or purchasing agent
06 Business: manager or administrator
07 Business: owner or proprietor
08 Business: public relations or advertising
09 Business: sales work
10 Carpenter
11 Clergy or religious worker
12 Clerical worker: secretary, stenographer, typist, or bookkeeper
13 Clerical worker: other
14 Commercial artist, designer, decorator
15 Communications (Radio, T.V., etc.)
16 Computer programmer or analyst
17 Construction craftsman (not elsewhere classified)
18 Counselor: guidance, family or school
19 Dentist, including orthodontist
20 Draftsman
21 Driver: truck, taxi, or bus
22 Electrician
23 Engineer
24 Factory worker (not elsewhere classified)
25 Farm or ranch laborer
26 Farm or ranch owner or manager
27 Foreman (not elsewhere classified)
28 Forester, conservationist, fish or wildlife specialist
29 Government official, administrator, or politician
30 Home economist or dietitian
31 Homemaker (full time)
32 Lawyer or judge
33 Librarian or archivist
34 Laborer (unskilled or semi-skilled)
35 Law enforcement officer
36 Mathematician, statistician, or actuary
37 Mechanic, machinist, or repairman
38 Military (career)
39 Nurse
40 Optometrist
41 Performing artist, musician, or entertainer
42 Pharmacist or pharmacologist
43 Physician or surgeon
44 Plumber
45 Psychologist (clinician or therapist only)
46 Scientific Researcher
47 Service worker: Private household (maid, cook, etc.)
48 Service worker: Protective (other than law enforcement)
49 Service worker: other
50 Skilled tradesman (not elsewhere classified)
51 Social, welfare, or recreation worker
52 Teacher, professor, or administrator
53 Teacher or administrator: secondary
54 Teacher or administrator: elementary
55 Teacher or educational specialist: other than above
56 Technician or technologist (health)
57 Technician or technologist (other)
58 Therapist (physical, occupational, speech)
59 Veterinarian
60 Writer, journalist, interpreter
61 Other occupation
(What) _____

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